# ANNUAL REPORT 1995-96
# NCERT

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# NCERT

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

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The NCERT is thankful to the experts who spared their valuable time to serve on its various committees and extended help in many ways. Thanks are also due to all the organisations and institutions, including the State Departments of Education, SIEs/SCERTs, Boards of Secondary/School Education, and universities, which collaborated with the NCERT and extended cooperation in carrying out its activities in a spirit of partners for the cause of education.

The NCERT would like to express its appreciation of the cooperation received by it from UNESCO, UNICEF, UNDP, UNFPA, World Bank, etc. for implementation of the programmes sponsored by them. It also appreciates the work done by the members of its staff at all levels without whose participation and dedication its programmes could not have been successfully implemented. Thanks are due to the thousands of teachers, students, parents and members of the public who sent letters to the various constituents of the NCERT giving their views on its publications and its programmes during the year 1995-96, which proved to be a constant source of inspiration for better performance.

This report has been drafted by the faculty of the Planning, Programming, Monitoring and Evaluation Division comprising Prof. M.S. Khaparde, Head of the Division, Dr J.P. Mittal, Reader, and Dr J.D. Sharma, Reader; and it has been processed for publication by the Publication Division, NCERT. Their valuable contribution has given this report its present shape.

## *LIFE ETERNAL THROUGH LEARNING*

NATIONAL COUNCIL OF
EDUCATIONAL RESEARCH
AND TRAINING

The intertwined *Hansas*
symbolise the integration of three
aspects of the work of the
National Council of Educational
Research and Training (NCERT) :
(i) Research and Development,
(ii) Training, and (iii) Extension.
The design has been adapted from an
Ashokan period relic of the third
century B.C. found in excavations
near Maske in the Raichur District
of Karnataka.

The motto has been taken
from the Isavasya Upanishad and means
*life eternal through learning.*

# Contents

# Abbreviations

| | |
|---|---|
| **AC** | Academic Committee |
| **ACER** | Australian Council for Educational Research |
| **AICTE** | All India Council of Teacher Educators |
| **AIDS** | Acquired Immuno Deficiency Syndrome |
| **AIEP** | Area Intensive Education Project |
| **AIES** | All India Educational Survey |
| **APEID** | Asia and the Pacific Programme of Educational Innovation for Development |
| **ANC** | African National Congress |
| **B.A.** | Bachelor of Arts |
| **BBC** | British Broadcasting Corporation |
| **BDO** | Block Development Officer |
| **B.Ed.** | Bachelor of Education |
| **BEO** | Block Education Officer |
| **B.Sc.** | Bachelor of Science |
| **B.Sc. Ed.** | Bachelor of Science and Education |
| **BRC** | Block Resource Centre |
| **CABE** | Central Advisory Board of Education |
| **CAL** | Computer Assisted Learning |
| **CBR** | Community Based Rehabilitation |
| **CBSE** | Central Board of Secondary Education |
| **CBT** | Competency Based Teaching |
| **CCE** | Continuous Comprehensive Evaluation |
| **CCRT** | Centre for Cultural Resources and Training |
| **CDPO** | Community Development Programme Officer |
| **CEP** | Cultural Exchange Programme |
| **CHEER** | Children's Enrichment Experiment Through Radio |
| **CIET** | Central Institute of Educational Technology |
| **CIRTES** | Central Institute for Research and Training in Employment Services |
| **CLASS** | Computer Literacy and Studies in Schools |
| **CMC** | Computer Maintenance Corporation |
| **CML** | Children Media Laboratory |
| **COBSE** | Council of Boards of School Education |
| **CPCI** | Certificate in Primary Curriculum and Instruction |
| **CPF** | Contributory Provident Fund |
| **CPT** | Certificate in Primary Teaching |
| **CRC** | Cluster Resource Centre |
| **CTE** | College of Teacher Education |
| **CFTC** | Curriculum for Training Colleges |
| **DAB** | Departmental Advisory Board |
| **DAE** | Department of Atomic Energy |
| **DCETA** | Department of Computer Education and Technological Aids |
| **DDA** | Delhi Development Authority |
| **DEGSN** | Department of Education of Groups with Special Needs |
| **DENFAS** | Department of Education in Non-Formal and Alternative Schooling |
| **DEME** | Department of Educational Measurement and Evaluation |
| **DEPFE** | Department of Educational Psychology and Foundations of Education |
| **DERPP** | Department of Educational Research and Policy Perspectives |
| **DESDP** | Department of Educational Survey and Data Processing |
| **DESM** | Department of Education in Science and Mathematics |
| **DESSH** | Department of Education in Social Sciences and Humanities |
| **DGE&T** | Directorate General for Employment and Training |
| **DIET** | District Institute of Education and Training |

| | |
|---|---|
| **DLDI** | Division of Library, Documentation and Information |
| **D.Litt** | Doctor of Literature |
| **DMS** | Demonstration Multipurpose School |
| **DPE** | Diploma in Primary Education |
| **DPEP** | District Primary Education Programme |
| **DPSEE** | Department of Pre-School and Elementary Education |
| **DRC** | District Rehabilitation Centre |
| **DRU** | District Resource Unit |
| **DST** | Department of Science and Technology |
| **DTEE** | Department of Teacher Education and Extension |
| **DWS** | Department of Women's Studies |
| **EC** | Executive Committee |
| **ECCE** | Early Childhood Care and Education |
| **ECE** | Early Childhood Education |
| **EDC** | Education and Development Centre |
| **EE** | Environmental Education |
| **EFA** | Education For All |
| **ERC** | Early Childhood Education Research Centre |
| **ERIC** | Educational Research and Innovations Committee |
| **ET&T** | Electronics Trade and Technology Development Corporation |
| **ETV** | Educational Television |
| **EVS** | Environmental Studies |
| **GPF** | General Provident Fund |
| **GSLIS** | Group Saving Linked Insurance Scheme |
| **HLM** | Hierarchical Linear Modelling |
| **HMs** | Headmasters |
| **HRD** | Human Resource Development |
| **IAB** | Institute's Advisory Board |
| **IASE** | Institute of Advanced Studies in Education |
| **ICDS** | Integrated Child Development Services |
| **ICSE** | Indian Council of Secondary Education |
| **IDA** | International Development Agency |
| **IED** | Integrated Education of the Disabled |
| **IEDC** | Integrated Education for Disabled Children |
| **IER** | Indian Educational Review |
| **IERDOC** | International Educational Resources Documentation Centre |
| **IGNOU** | Indira Gandhi National Open University |
| **IIT** | Indian Institute of Technology |
| **IMO** | International Mathematics Olympiad |
| **INSAT** | Indian National Satellite |
| **IPH** | Institute of Physically Handicapped |
| **IRD** | International Relations Division |
| **ISK** | Integrated Science Kit |
| **ISRO** | Indian Space Research Organisation |
| **IUCAA** | Inter-University Centre for Astronomy and Astrophysics |
| **ITTP** | Interactive Teacher Training Programme |
| **JET** | Joint Evaluation Team |
| **JIE** | Journal of Indian Education |
| **J&K** | Jammu and Kashmir |
| **JNU** | Jawaharlal Nehru University |
| **JNV** | Jawahar Navodaya Vidyalaya |
| **JNVST** | Jawahar Navodaya Vidyalaya Selection Test |
| **KEDI** | Korean Educational Development Institute |
| **KVS** | Kendriya Vidyalaya Sangathan |
| **LCFAKT** | Low Cost Functional Assessment Kit |
| **LIC** | Life Insurance Corporation |
| **MC** | Management Committee |
| **MCD** | Municipal Corporation of Delhi |
| **M.Ed.** | Master of Education |
| **MHRD** | Ministry of Human Resource Development |
| **MLLs** | Minimum Levels of Learning |
| **MOE** | Minister of Education |

| | |
|---|---|
| **MOU** | Memorandum of Understanding |
| **MPRC** | Multipurpose Resource Centre |
| **MTK** | Mini Tool Kit |
| **MTS** | Mathematical Talent Search |
| **NACO** | National Aids Control Organisation |
| **NBHM** | National Board for Higher Mathematics |
| **NCERT** | National Council of Educational Research and Training |
| **NCT** | National Capital Territory |
| **NCVEI** | National Centre for Vocational Education Information |
| **NDG** | National Development Group |
| **NDU** | National Documentation Unit |
| **NFE** | Non-Formal Education |
| **NGO** | Non-Government Organisation |
| **NHEES** | Nutrition, Health Education and Environmental Sanitation |
| **NIC** | National Informatic Centre |
| **NICNET** | National Informatic Centre Network |
| **NIE** | National Institute of Education |
| **NIEPA** | National Institute of Educational Planning and Administration |
| **NIPCCD** | National Institute of Public Cooperation and Child Development |
| **NLEPT** | National Library of Educational and Psychological Tests |
| **NPPC** | National Prize Competition for Children's Literature |
| **NPE** | National Policy on Education |
| **NPEP** | National Population Education Project |
| **NTS** | National Talent Search |
| **NVC** | Navodaya Vidyalaya Cell |
| **NVS** | Navodaya Vidyalaya Samiti |
| **OB** | Operation Blackboard |
| **ODA** | Overseas Development Agency |
| **PAC** | Programme Advisory Committee |
| **PC** | Personal Computer |
| **PD** | Publication Division |
| **Ph.D.** | Doctor of Philosophy |
| **PIED** | Project Integrated Education of the Disabled |
| **POA** | Programme of Action |
| **POPDOC** | Population Education Documentation Centre |
| **PPMED** | Planning, Programming, Monitoring and Evaluation Division |
| **PPR** | Project Progress Review |
| **PSK** | Primary Science Kit |
| **PSSCIVE** | Pandit Sunderlal Sharma Central Institute of Vocational Education |
| **RACE** | Reading Skills and Comprehensive Enhancement |
| **RCC** | Regional Coordination Committee |
| **RCE** | Regional College of Education |
| **RIE** | Regional Institute of Education |
| **RPDC** | Regional Production-cum-Distribution Centre |
| **SAARC** | South Asian Association for Regional Cooperation |
| **SC** | Scheduled Caste |
| **SCC** | State Coordination Committee |
| **SCERT** | State Council of Educational Research and Training |
| **SIE** | State Institute of Education |
| **SIO** | State Information Officer |
| **SISE** | State Institute of Science Education |
| **SOPT** | Special Orientation for Primary Teachers |
| **SPSS** | Statistical Package for Social Sciences |
| **SRC** | State Resource Centre |
| **SSO** | State Survey Officer |

**ST** Scheduled Tribe

**STS** Science Technology Society

**STV** School Television

**TGT** Trained Graduate Teacher

**TLC** Total Literacy Campaign

**TTI** Teachers Training Institute

**UAE** United Arab Emirates

**UNCLES** University of Cambridge Local Examinations Syndicate

**UEE** Universalisation of Elementary Education

**UGC** University Grants Commission

**UK** United Kingdom

**UNDP** United Nations Development Programme

**UNESCO** United Nations Educational, Scientific and Cultural Organisation

**UNEVOC** UNESCO-sponsored Project on Technical and Vocational Education

**UNFPA** United Nations Fund for Population Activities

**UNICEF** United Nations Children's Fund

**UPE** Universalisation of Primary Education

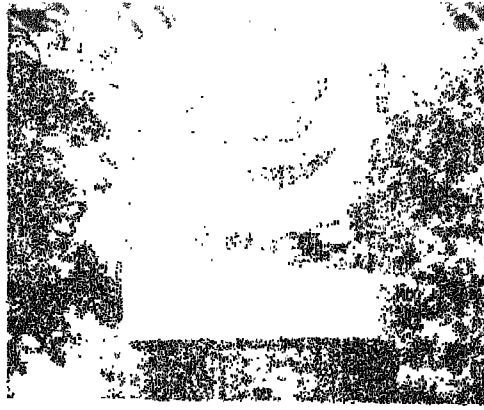
**UT** Union Territory

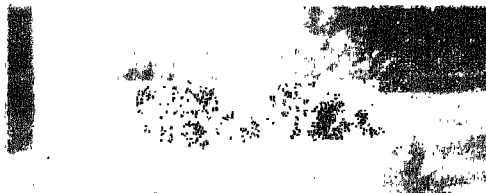
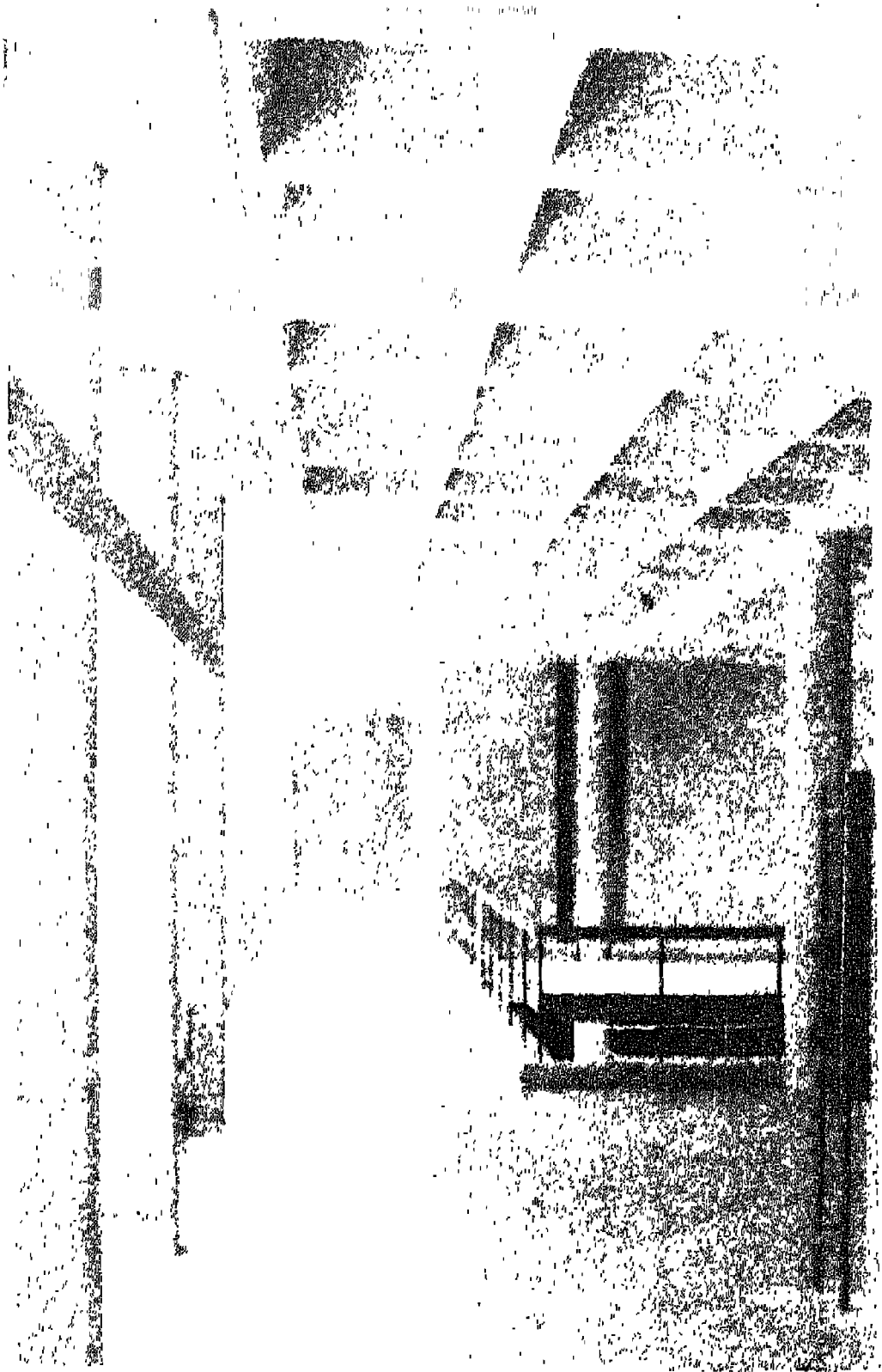
**VEC** Village Education Committee

**VEO** Village Education Officer

**VP** Village Panchayat

*Smt. Asha Kumari, State Minister of Primary Education, Himachal Pradesh, releasing a report on the Proceedings of the International Seminar on School Effectiveness and Learning Achievement at Primary Stage in the General Body meeting of the NCERT held on 19 December 1995*

1

# NCERT : AN APEX ORGANISATION

*Being an apex national body for research in school education, the NCERT performs the important function of conducting and supporting research and offering training in educational research methodology. The different departments of the National Institute of Education (NIE), Regional Institutes of Education (RIEs), Central Institute of Educational Technology (CIET) and Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) undertake programmes of research related to different aspects of school education, including teacher education.*

## An Apex Resource Organisation in School Education

The National Council of Educational Research and Training (NCERT) is an apex resource organisation set up by the Government of India, with headquarters at New Delhi, to assist and advise the Central and State Governments on academic matters related to school education.

The NCERT provides academic and technical support for improvement of school education through its constituents which are as follows:

1. National Institute of Education (NIE), New Delhi
2. Central Institute of Educational Technology (CIET), New Delhi
3. Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal
4. Regional Institute of Education (RIE), Ajmer
5. Regional Institute of Education (RIE), Bhopal
6. Regional Institute of Education (RIE), Bhubaneswar
7. Regional Institute of Education (RIE), Mysore
8. North-East Regional Institute of Education (NE-RIE), Shillong
9. Field-Advisers' Offices in the States

## National Institute of Education

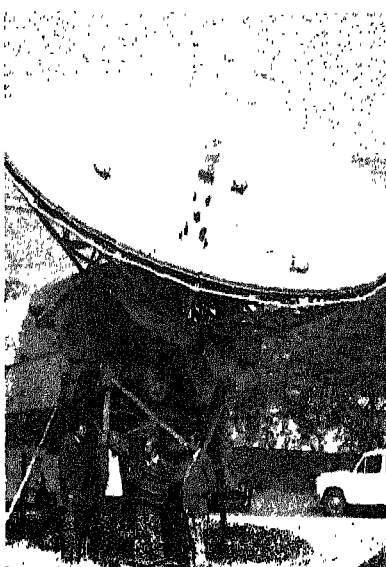
The National Institute of Education (NIE), in New Delhi through its various Departments/Divisions carries out research and development functions related to pedagogical aspects of curriculum; prepares prototype curricular and other supplementary instructional materials; develops school education-related data-base and undertakes experimentation in pre-school, elementary and secondary stages to nurture all-round development of the learner. The NIE also organises in-service training of key resource persons and teacher educators associated with implementation of centrally sponsored school improvement schemes.

In pursuance of the recommendations of the Abbreviated Review of the Council, the NIE Departments were restructured during 1995-96 to make them more effective. The re-organised Departments together with their areas of concern are given on pages 4-5.

## CIET

The Central Institute of Educational Technology (CIET), also located in New Delhi, performs educational media related research; development, training, production and extension functions, and provides academic and technical guidance and support to the State Institutes of Educational Technology (SIETs).

## PSSCIVE

Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), located in Bhopal, organises research and development functions related to vocational education in the school sector.

## Regional Institutes of Education

The Regional Institutes of Education (RIEs)* located in Ajmer, Bhopal, Bhubaneswar and Mysore provide in-service training support to state and district level teacher training institutions in the school sector. To a limited extent, pre-service professional training to prepare school teachers for teaching science and mathematics and teacher educators for Elementary Teacher Training Institutions is also offered by the RIEs. A new Regional Institute of Education (RIE) was set up at Shillong in December 1995 to cater to the educational needs of the North-Eastern States (Assam, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Nagaland, Tripura and Sikkim).

*With effect from April 1995 the erstwhile Regional Colleges of Education (RCEs) have been renamed as Regional Institutes of Education (RIEs) in pursuance of the recommendations of the Abbreviated Review of the NCERT undertaken by the MHRD.

## *Educational Concerns of the Departments of the NIE*

| Departments/Divisions | Educational Concerns |
| --- | --- |
| Department of Pre-School and Elementary Education (DPSEE) | Issues and problems related to pre-school and elementary education including research and development of prototype; teaching learning materials and functions of the National Resource Group in teacher training, pedagogy and curriculum, as a part of the District Primary Education Programme (DPEP) jointly with the Department of Teacher Education and Extension. |
| Department of Education in Non-Formal and Alternative Schooling (DENFAS) | Issues and problems of non-enrolled and drop-out children including research and development of prototype models of non-formal education, alternative schooling, studies related to open schooling for NFE, instructional materials and training strategies for NFE personnel. |
| Department of Education of Groups with Special Needs (DEGSN) | Issues and problems related to education of scheduled castes/scheduled tribes, minorities, disabled and other groups with special needs. |
| Department of Women's Studies (DWS) | Issues and problems related to education of girls and related research and development activities. |
| Department of Teacher Education and Extension (DTEE) | Programmes for the capacity-building of teacher education institutions at state/sub-state levels and academic support to the centrally sponsored scheme of teacher education; function of the National Resource Group on training, pedagogy and curriculum jointly with the Department of Pre-School and Elementary Education; coordination with the National Council for Teacher Education (NCTE), and issues related to extension education. |
| Department of Education in Science and Mathematics (DESM) | Issues and problems in the education of science and mathematics and research and development of prototype curriculum and instructional materials, and designing and developing of science equipment. |
| Department of Education in Social Sciences and Humanities (DESSH) | Issues and problems of education in social sciences and humanities, research and development of prototype curriculum and instructional materials, population education activities as a part of the National Population Education Project (NPEP). |
| Department of Educational Psychology and Foundations of Education (DEPFE) | Studies related to psychological, sociological and philosophical foundations of education; comparative education; and their implications for school education. |

## *Educational Concerns of the Departments of the NIE*

*(contd)*

| Departments/Divisions | Educational Concerns |
|---|---|
| Department of Educational Measurement and Evaluation (DEME) | Measurement and evaluation-related concerns in school education; examination reform including continuous and comprehensive evaluation, and related research and development activities. |
| Navodaya Vidyalaya Cell (NVC) | Technical support to the Navodaya Vidyalaya Samiti to select students for admission to the Jawahar Navodaya Vidyalayas in the country. |
| Department of Educational Surveys and Data Processing (DESDP) | Periodic thematic educational studies including All India Educational Surveys and the functions of Computer Resources Centre. |
| Department of Educational Research and Policy Perspectives (DERPP) | Promoting policy research in education; organizing activities for operationalising 'think tank' function; undertaking, coordinating, sponsoring, and commissioning research and innovations in school education, and the functions of ERIC Secretariat. |
| Department of Computer Education and Technological Aids (DCETA) | Issues and problems in computer education and related research and development in modern technological aids/multimedia educational support. |
| Planning, Programming, Monitoring and Evaluation Division (PPMED) | Coordination of educational programmes formulation, monitoring programme implementation, evaluation of programme utilisation by the target groups, and impact assessment of programmes of constituents of the NCERT. |
| International Relations Division (IRD) | Coordination of international relations with educational institutions in other countries, and serving as an academic secretariat for the National Development Group. |
| Publication Division (PD) | Publishing of school-level textbooks, instructional and supplementary materials, journals and research monographs. |
| Division of Library, Documentation and Information (DLDI) | Documentation of educational information, and providing library services. |

## Field Offices

The Field Offices of the NCERT, mostly located in the state capitals, carry out educational liaisoning with Departments of Education and other related institutions on problems and issues of school education in the states and apprise them of activities and programmes of the NCERT. As per the recommendations of the Abbreviated Review of the NCERT these Field Offices have to be merged in the RIEs. Five Field Offices located at Bhopal, Bhubaneswar, Jaipur, Shillong and Shimla have already been closed down.

## Programmes and Activities

The NCERT undertakes the following programmes and activities.

### *Research*

Being an apex national body for research in school education, the NCERT performs the important function of conducting and supporting research and offering training in educational research methodology. The different departments of the National Institute of Education (NIE), Regional Institutes of Education (RIEs), Central Institute of Educational Technology (CIET) and Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) undertake programmes of research related to different aspects of school education, including teacher education.

Besides conducting in-house research, the NCERT supports other research programmes providing financial assistance and academic interaction to individuals and organisations. Assistance is given to scholars for publication of their Ph.D. theses. Research Fellowships are offered to encourage studies in school education to create a research base for developmental, training and extension programmes and to create a pool of competent research workers. It also organises courses for educational research workers.

The NCERT also organises educational research in the country. It has computer facilities for storing, processing and retrieval of data. It collaborates with international agencies in inter-country research projects.

### *Development*

Developmental activities in school education constitute an important function of the NCERT. The major developmental activities include development and renewal of curricula and instructional materials for various levels of school education and making them relevant to changing needs of children and society. The innovative developmental activities include development of curricula and instructional materials in school education in the area of pre-school education, formal and non-formal education, vocationalisation of education and teacher education. Developmental activities are also undertaken in the domains of educational technology, population education, and education of the disabled and special groups.

### *Training*

Another important dimension of NCERT's activities is the pre-service and in-service training of teachers at various levels: pre-primary, elementary, secondary and higher secondary, and also in such areas as vocational education, educational technology, guidance and counselling and special education. The pre-service teacher education programmes at the Regional Institutes of Education (RIEs) incorporate innovative features such as integration of content and methodology of teaching, long-term internship of teacher trainees in the actual classroom setting, and participation of students in community work. The RIEs also undertake the training of key personnel of the states and of state-level institutions and training of teacher educators and in-service teachers.

## Extension

The NCERT has comprehensive extension programmes in which various departments of the NIE, RIEs, CIET, PSSCIVE and the offices of the Field Advisers in the states are engaged in various ways. It works in close collaboration with various agencies and institutions in the states and also works extensively with extension service departments and centres in teacher training colleges and schools with the purpose of providing assistance to various categories of personnel, including teachers, teacher educators, educational administrators, question-paper setters, textbook writers, etc.

Conferences, seminars, workshops and competitions are organised as regular on-going programmes as a part of the extension activities. Several programmes are organised in rural and backward areas in order to reach out to the functionaries in these areas where special problems exist and where special efforts are needed. Special programmes are organised for the education of the disabled and for the education of the disadvantaged sections of the society. The extension programmes cover all the states and Union Territories of the country.

## Publication and Dissemination

The NCERT publishes textbooks for different school subjects for Classes I to XII. It also brings out workbooks, teacher's guides, supplementary readers, research reports, etc. In addition, it publishes instructional materials for the use of teacher educators, teacher trainees and in-service teachers. These instructional materials, produced through research and developmental work, serve as models to various agencies in the states and the Union Territories. These are made available to state-level agencies for adoption and/or adaptation. The textbooks are published in English, Hindi and Urdu.

For dissemination of educational information, the NCERT publishes six journals: *The Primary Teacher* is published both in English and Hindi and aims at giving meaningful and relevant educational inputs to primary school teachers for direct use in the classroom; *School Science* serves as an open forum for discussion on various aspects of science education; *Journal of Indian Education* provides a forum for encouraging original and critical thinking in education through discussion on current educational issues; *Indian Educational Review* contains research articles and provides a forum for researchers in education, and *Bharatiya Adhunik Shiksha*, published in Hindi, provides a forum for encouraging critical thinking in education on contemporary issues and for dissemination of educational problems and practices. Besides these, a house journal called *NCERT Newsletter* is also published every month in English and Hindi. The title of the Hindi version of the newsletter is *Shaikshik Darpan*.

## Exchange Programme

The NCERT interacts with international organisations such as UNESCO, UNICEF, UNDP and UNFPA to study specific educational problems and to arrange training programmes for personnel from the developing countries. It is one of the Associated Centres of APEID. It also acts as the Secretariat of the National Development Group (NDG) for Educational Innovations. The NCERT has been offering training facilities, usually through attachment programmes and participation in workshops, to educational workers of other countries.

The NCERT also acts as a major agency for implementing the bilateral cultural exchange programmes entered into by the Government of India with the governments of other countries in the fields of

school education and teacher education by sending delegations to study specific educational problems relevant to Indian requirements and by arranging training and study visits for scholars from other countries. Educational materials are exchanged with other countries. On request, the faculty members are deputed to participate in international conferences, seminars, workshops, meetings, symposia, etc.

## States' Involvement

The entire process of planning, implementation, monitoring and evaluation of programmes of various constituents of the NCERT is a collaborative or joint venture of the NCERT and the states.

In almost all academic programmes of the NCERT, academics and professionals from the states/UTs are involved at various stages, from the planning to the wider infusion of the outcomes into the system. The entire process gives an opportunity to the NCERT faculty to work for the states/UTs with their close cooperation.

## Organisational Structure

The Union Minister of Human Resource Development is the President of the General Body of the NCERT. The members of the General Body include the Education Ministers of all the states and Union Territories.

Other members of the General Body include the Chairman of the University Grants Commission (UGC); the Secretary to the Government of India, Ministry of Human Resource Development (Department of Education); four Vice-Chancellors of universities (one from each region); the Chairman of the Central Board of Secondary Education; the Commissioner of the Kendriya Vidyalaya Sangathan; the Director, Central Health Education Bureau; the Director of Training, Directorate General of Training and Employment, Ministry of Labour; a representative of the Education Division, Planning Commission; all the members of the Executive Committee (not included above) of the Council and such other persons, not exceeding six, as the Government of India may nominate (not less than four of these shall be school teachers). The Secretary, NCERT, acts as the convenor of the General Body of the NCERT.

The main governing body of the NCERT is the Executive Committee. The Union Minister of Human Resource Development is its President (*ex officio*) and the Union Minister of State in the Ministry of Human Resource Development is the *ex officio* Vice-President. The members of the Executive Committee include the Secretary to the Government of India, Ministry of Human Resource Development (Department of Education); the Director, NCERT; the Chairman of the University Grants Commission; four educationists with known interest in school education (two of whom shall be school teachers); the Joint Director, NCERT; three members of the faculty of the NCERT (of whom at least two shall be of the level of professor and Head of the Department); one representative of the MHRD and one representative of the Ministry of Finance (who shall be the Financial Adviser of the NCERT). The Secretary, NCERT acts as the convenor of the Executive Committee.

The Executive Committee is assisted in its work by the following Standing Committees:

1. Finance Committee
2. Establishment Committee
3. Building and Works Committee
4. Managing Committees of the Regional Institutes of Education.
5. Advisory Board of the Central Institute of Educational Technology.
6. Advisory Board of Pandit Sunderlal Sharma Central Institute of Vocational Education.
7. Programme Advisory Committee.
8. Educational Research and Innovations Committee.

The NCERT's headquarters consist of:

1. The Council's Secretariat
2. Accounts Branch

The five senior functionaries of the NCERT appointed by the Government are the Director, the Joint Director, the Joint Director of the CIET, the Joint Director of PSSCIVE, and the Secretary. During the year under report, these positions were held by the following.

| ***Senior Functionaries of the NCERT*** | |
|---|---|
| Director | Professor A. K. Sharma |
| Joint Director | Professor A.N. Maheshwari |
| Joint Director (CIET) | 1. Professor A.N. Maheshwari (Up to 19 March 1996)<br>2. Smt. Kusum Nangia (From 20 March 1996) |
| Joint Director (PSSCIVE) | Professor A.K. Mishra |
| Secretary | Shri R.S. Pandey (Up to 28 December 1995) |

The Director is inter alia assisted in the academic functions by three Deans. During the year under report, the positions were held by the following.

| ***Deans of the NCERT*** | |
|---|---|
| Dean (Research) | Professor A. N. Maheshwari |
| Dean (Academic) | Professor R. M. Kalra |
| Dean (Coordination) | Professor M.S. Khaparde |

The Dean (Academic) coordinates the work of the Departments of the NIE, Dean (Research) coordinates the research programmes and looks after the work of the Educational Research and Innovations Committee (ERIC), and Dean (Coordination) coordinates the activities of the Service/Production Departments, the Field Offices and the Regional Institutes of Education.

## Planning and Monitoring of Programmes

While formulating their programmes, the constituents of the NCERT inter alia keep in view the provisos of the National Policy on Education (NPE) and the educational needs of the states requiring NCERT's inputs. The educational needs of the states are identified mainly through the mechanism of the State Coordination Committees (SCCs) which provide a forum for interaction among the NCERT faculty and senior functionaries of the State Education Departments. The Education Secretary is the Chairperson of the SCC and the Principal of the concerned Regional Institute of Education (RIE) is the Member-convener. The identified educational needs of the states are further considered by the RIEs in their Managing Committees (MCs). Inputs for several educational needs of the states are provided by the RIEs themselves. The educational needs of the states requiring inputs from other constituents of the NCERT are referred to them for taking necessary action. The academic programmes of the Departments of the NIE are processed through the Advisory Boards of the concerned Departments (DABs) and thereafter by the Academic Committee (AC) of the NIE. Programmes of the CIET based on media support required by the educational system are processed through Institute's Advisory Board (IAB). The programmes of Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) are processed through its Advisory Board (IAB). Research programmes proposed by the constitutent units of the NCERT and other institutions/organisations are considered by the Educational Research and Innovations Committee (ERIC). Programmes referred by Academic Committee, Institute's Advisory Boards, Managing Committees of the RIEs and the Educational Research and Innovations Committee are scrutinised by a Sub-Committee of the Programme Advisory Committee (PAC) to check overlaps and gaps, etc.

The programmes processed by various Programme Processing Committees are finally considered by the Programme Advisory Committee (PAC). The PAC inter alia recommends to the Executive Committee of the NCERT the lines on which the research, training, extension and other programmes should be conducted and the channels into which they should be directed to best serve the object of promoting the interest of school education in the country. The PAC also considers the programmes that are received by the NCERT from international organisation through MHRD.

During the year 1995-96, the Programme Advisory Committee (PAC) met on 7 February 1995 and considered the recommendations of the various Advisory Boards/Committees.

### *Monitoring of Programme Implementation*

The Head of each Constituent/Unit/Department of the NCERT is mainly responsible for monitoring the implementation of its programmes. The progress of implementation of the programmes of the constituents of the NCERT located at the headquarter were reviewed

*State educational needs identified by the NCERT in consultation with the State education authorities are processed through the State Coordination Committees (SCCs).*
*The educational programmes of the Regional Institutes of Education (RIEs) are processed through the Managing Committees (MCs) of the RIEs.*

*Research programmes proposed by the constituent units of NCERT and other institutions/ organisations, including university departments and voluntary organisations, are considered by the Educational Research and Innovations Committee (ERIC).*

*Programmes referred by AC, IAB, MCs and ERIC are scrutinised by a Sub-Committee of the Programmes Advisory Committee to check duplications, overlaps, gaps, etc.*

*Programmes scrutinised by the Sub-Committee of the PAC are considered by the Programme Advisory Committee (PAC) of the NCERT.*

*The programmes approved by the PAC are finally approved by the Executive Committee (EC) of the NCERT.*

*The programmes approved by the PAC and EC are implemented by the constituents of the NCERT.*

*Progress of implementation of programmes is monitored by the Head of the Constituent/Department every month and by a Monitoring Committee, chaired by the Director, every four months.*

*The outcome of programmes is evaluated by the Constituent/ Department or the PPMED for wider infusion into the education system for qualitative improvement in school education.*

*Academic programmes of the Departments of the National Institute of Education (NIE), based on the advice of the MHRD, the National Policy on Education (NPE), interactions with state education authorities, assistance sought by Central Educational Organisations (CABE, KVS, NVS, CBSE etc.) and inputs of international organisations are processed through the Institute's Advisory Boards of Department (DABs) of the NIE and thereafter by the Academic Committee (AC) of the NIE.*

*Programmes of the Central Institute of Educational Technology (CIET) based on the media support required by the education system and needs of the constituents of the NCERT and the SIETs are processed through the Institute's Advisory Board (IAB).*

*Programmes of the Central Institute of Vocational Education (CIVE) are processed through the Institute's Advisory Board (IAB).*

**Diagrammatic presentation of the mechanism at the NCERT level for formulation of academic programmes reflecting educational needs of the states, national commitments and international inputs, their implementation for qualitative improvement of school education, monitoring of programme implementation, evaluation of end-products/outcomes and their utilisation to improve the education system.**

periodically by the Director, NCERT. The progress of the programmes of the Regional Institutes of Education (RIEs) were reviewed periodically by the Joint Director, NCERT. In the review meetings, besides taking stock of the progress of implementation of the programmes and identification of gaps in implementation, suggestions are given for plugging the gap, wherever needed, and for wider infusion of the outcomes of the programmes into the system.

The entire process of planning, implementation, monitoring and evaluation of programmes of various constitutents of the NCERT is a collaborative or joint venture of the NCERT and the states. In almost all academic programmes of the NCERT, academics and professionals from the states/UTs are involved at various stages, i.e. from the planning to the wider infusion of the outcomes into the system. The entire process gives an opportunity to the NCERT faculty to work for the states/UTs with their close cooperation. In order to streamline the process of planning, monitoring of implementation and evaluation of academic programmes, the NCERT is finalising a framework. Based on a study, this draft framework has been sent to Education Secretaries of the states/ UTs for comments and suggestions. In a regional meet-cum-workshop organised at the SCERT, Maharashtra, Pune, the modus operandi was evolved for the identification of educational needs of the states by the Regional Institutes of Education for various constituents of the NCERT. Alternative modes suggesting mechanism for interaction of the constituents of the NCERT with the State Education Departments were also considered.

## Reports and Returns

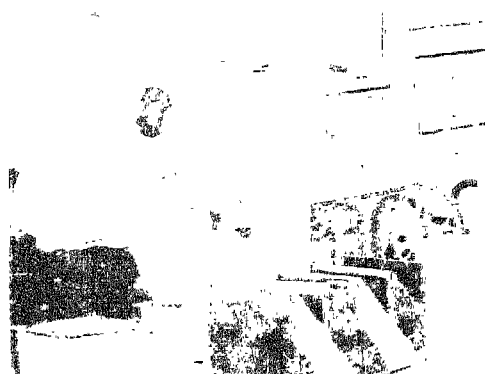
The NCERT prepares from time to time several reports and returns about its programmes and activities for various purposes. The following reports and returns were submitted to the MHRD:

1. Monthly report on important activities and significant events.
2. Monthly summary of important activities and significant events.
3. Monthly report of important events for the Cabinet Secretariat.
4. Quarterly report about action taken on the welfare of minorities and to curb communalism.
5. Quarterly report about action taken for implementation of the recommendations of the National Integration Council.
6. Round-up of activities for *Education Quarterly*, a journal of the MHRD.
7. Annual report of the NCERT.
8. Performance budget.

## Administration

Category-wise sanctioned strength of the NCERT as on 31 March 1996 is shown in Appendix II.

### *Finance*

The information regarding receipt and payment of the NCERT for the year 1995-96 is given in Appendix III.

# 2

# ACTIVITIES AND PROGRAMMES

*A National Documentation Unit (NDU) for Pre-School and Elementary Education has been set up at the NIE for collection, documentation and dissemination of relevant information in pre-school and elementary education. A baseline study of the competencies achieved by the children was undertaken followed by a brief study to identify the reasons for non-achievement of competencies. Training in MLLs, learner-centred and activity-based teaching was provided to teachers of three local Kendriya Vidyalayas.*

## Major Activities and Programmes

During 1995-96, the NCERT had a fresh look at its functioning, reorganised its constituent departments and reprioritised some of the programmes to respond to the national concerns in school education. Elementary education received special emphasis. The implementation of the Programme of Action (POA) on the National Policy on Education (NPE) was carried out at an accelerated pace.

The outreach of academic support and consultancy services was extended to state and district level agencies involved in the implementation of District Primary Education Programme (DPEP) in the selected districts. Steps were initiated to attend to the development of school education sector in the North-East region. A new Regional Institute of Education (RIE) was established at Shillong in December 1995. The Fifth Survey of Educational Research in the country and the Sixth All India Educational Survey were computerised to make them time effective. The programmes and activities in various areas conducted by the constituents departments of the NCERT including regional level inputs through the RIEs are briefly reported in this section.

## Pre-School Education

An impact study of innovations in ten ICDS projects was completed. A study of Pre-School Education Component of ICDS and its Perception and Extent of Utilisation by the Community is in progress. A video film was developed as a part of the School Readiness Package. Advocacy programmes for right kind of Play-based Pre-School Education continued. An advocacy programme was organised in Kota during 1995. The NCERT continued facilitating the state level activities in twelve ECE states. Emphasis was given on strengthening of ECE component of ICDS and developing a cadre of resource persons in ECE. Annual plans for the ECE programmes in states were developed in consultation with the NCERT. Monitoring of implementation of Early Childhood Education (ECE) programmes was done through half-yearly review meetings. A quarterly newsletter *Soojh Bhoojh* is published for participating teachers in ECE.

## Primary Education

A National Documentation Unit (NDU) for Pre-School and Elementary Education has been set up at the NIE for collection, documentation and dissemination of relevant information in pre-school and elementary education. The NDU will soon start a quarterly newsletter entitled 'Glimpses: Pre-School and Elementary Education', the manuscripts of which are being developed. The publication of quarterly journal *The Primary Teacher* (in English) and *Primary Shikshak* (in Hindi) continued.

The NCERT continued providing academic assistance and guidance to the Municipal Corporation of Delhi (MCD) on various aspects of the Education For All (EFA) project. A baseline study of the competencies achieved by the children was undertaken followed by a brief study to identify the reasons for non-achievement of competencies. Training in MLLs, learner-centred and activity-based teaching was provided to teachers of three local Kendriya Vidyalayas. Academic support in the conduct of teacher training programmes of the Atomic Energy Central Schools was provided. The primary school teachers of Demonstration Multipurpose Schools attached to the RIEs were given training in competency-based teaching learning activities.

Based on empirical and rational considerations, the document on the Minimum Levels of Learning (MLLs) at the primary stage has been revised. This document includes MLLs in language, mathematics, environmental studies, art education, work experience and health and physical education. A National Workshop of functionaries of various agencies was organised to provide a forum for sharing experience in development and try-out of competency-based teaching learning material.

The NCERT-IGNOU collaborative project 'Development of distance education material in different learning areas at primary stage for initial training of primary school teachers' targetted to provide training to untrained teachers in primary schools mainly for the North-Eastern region, Sikkim and West Bengal is in progress. Under the Memorandum of Understanding (MOU) signed between the NCERT and IGNOU, the responsibility of developing different modules for the diploma course in primary edication rests with the NCERT. Printing of the modules and launching of the programme will be undertaken by IGNOU. The programme is proposed to be launched in three different modules: Module I: Certificate in Primary Teaching (CPT); Module II: Certificate in Primary Curriculum and Instruction (CPC) and Module III: Diploma in Primary Education (DPE). Four courses under Module I have already been developed and submitted to IGNOU for content editing. Draft material for three different courses under Module II are under preparation.

## Non-Formal Education and Alternative Schooling

Studies on street and working children continued. Efforts were made to identify basic skills and competencies attained by various categories of such children. Based on the analysis of skills and vocabulary list, criteria, guidelines and designs for development of learner-specific, skill-based teaching learning materials were prepared. Draft materials on topics (i) Health and Body Care, (ii) Identification and Use of Plants for Body Maintenance, (iii) Converting Waste into Useful Materials,and (iv) Identification of Agricultural Tools and Processes Differentiating between Scientific and Traditional Modes of Agricultural Activities were prepared. A Core Primer and Cards based on vocabulary of various categories of street and working children were prepared. The materials are being tried out and refined. Personnel from voluntary organisations of different states were oriented for providing training to NFE functionaries. Training programmes for analysis of MLLs-based NFE materials and effective transaction of teaching learning materials were organised.

A package of materials in Hindi based on MLLs consisting of 12 books for four NFE semesters at the primary level and six books under the 'local-specific materials series' were developed. Local specific materials in Kannada, Telugu and Malayalam are being finalised. In the context of a project on preparation of State Profiles of NFE, data pertaining to NFE scheme at policy, practice and perception levels from the states of Orissa, Bihar and Uttar Pradesh were collected and consolidated. Two films *Gopal Padhney Laga* and *Hari Seekh Gaya* were produced. A film on teaching of language is under editing. The script of the film for teaching of numeracy was modified.

The NCERT has evolved a curriculum framework for training of NFE faculty of the SCERTs for upgradation of their competencies. Two orientation programmes were organised for SCERTs of Hindi-speaking states. A training manual for DRUs was developed. New trends and strategies of NFE programme in the context of the DPEP and EFA (Education For All) are inter alia highlighted in the training programmes.

The NCERT is coordinating the work of (i) Joint Evaluation Teams (JETs) which have been assigned the task of evaluation of working of the voluntary agencies getting grants from the MHRD for NFE, and (ii) Pre-sanction appraisal of NFE projects submitted by the voluntary agencies to the MHRD for grants-in-aid under the NFE scheme. A National Conference on NFE discussed issues such as (i) NFE in the Ninth Five Year Plan, (ii) Role of NGOs in NFE, and (iii) DPEP, NFE and Alternative Schooling.

## Education of SC, ST and Minorities

A study to determine the efficacy of Ashram schools is in progress. A tracer study of NFE passed out scheduled caste students was undertaken in eight districts of Madhya Pradesh. An annotated bibliography on Educational Development of the SCs was prepared and disseminated. Five Supplementary Readers on Gond Tribes of Baster District of Madhya Pradesh were developed. An analytical study of NFE teaching learning materials of Assam and Andhra Pradesh from the standpoint of materials prejudicial to SCs and STs was conducted. State-level functionaries of Orissa were trained in tribal education. Studies titled (i) Development of Training Package for Key Persons for Teaching Learning in Minority Institutions, and (ii) Analysis and Modification of Curriculum in Maktabs/Madrasas are in progress.

## Education of Disabled Children

Two state-level conferences of educational administrators were organised to develop a plan for implementation of IEDC (Integrated Education of Disabled Children) utilising the experience gained under the Project Integrated Education of the Disabled (PIED). Based on analysis of the data of a survey study, a publication, *Integrated Education of Disabled in Common Schools* was brought out and disseminated. This contains statewise status reports about IEDC from 1992 to 1995. A computer programme was developed to feed data into the computer regarding each disabled child enrolled in common schools in 10 project states covered under the Unicef-assisted project PIED. Records of 1,705 disabled children are being maintained for research purposes.

## Education of the Girl Child

A six-week training programme on Methodology of Women Education and Development was organised. Twenty participants from nine states participated. Training manuals and materials were developed. Field work and analysis of data of the study 'Identification of factors relating to recruitment and posting of women teachers in rural and remote areas' was completed. Six one-day workshops were organised to provide an open forum to about 360 teachers to express their views on recruitment and transfer problems faced by female teachers in rural areas. Interaction was also made with parents and officials at village, block, district and state levels.

Exemplar materials consisting of 30 biographies of eminent women who contributed in the freedom struggle and social upliftment of women were prepared. A fact sheet on Education of Girl Child was published. A teachers' handbook focussing on Girls' Education and Women's Empowerment for Primary and Upper Primary Teachers was prepared. A source book on Development of Girls' Education and Women's Empowerment was prepared. Resource material in gender training of primary teachers and head teachers titled *From Girl Child to Person*, prepared by a faculty member of the NCERT, was published by UNESCO.

## Education in Science and Mathematics

Review and revision work of science textbooks was undertaken. Manuscript of a textbook on 'Computer Literacy' was developed. Under 'Reading to Learn' project, three books, (i) *Gahan Samudra Mein Ek Khan Bahudhatvik Pindo Ki*, (ii) *Samudra: Kuber Ka Bhandar*, and (iii) *Upagraha Uvach* were developed.

Programmes related to nurturance of talent in science and mathematics were initiated. Work related to laboratory-oriented activities for effective development of experimental skills as a part of teaching learning of science at school stage was also initiated. Some conceptual material for promotion of environmental education as an integral part of curriculum has been developed. An orientation programme for experts associated with curriculum development in the Boards of School Education was organised. Studies related to curriculum titled (i) Assessment of Curriculum Load in Mathematics for Upper Primary Stage, and (ii) Assessment of Curriculum Load in Science at Upper Primary Stage were undertaken. A study of Impact of the Scheme Improvement of Science Education in Schools was conducted.

The National Science Exhibition for Children, 1995 was organised at New Delhi in collaboration with the Jawaharlal Nehru Memorial Fund and the Government of NTC of Delhi on the theme 'Science and Low Cost Technology for Development'. A three-week special training programme for 80 science and mathematics teachers of Ladakh region was organised.

## Education in Social Sciences and Languages

Some textbooks in social sciences and languages were reviewed and revised. A syllabus of general studies as a core area was developed. Syllabus of Consumer Education is being prepared. A draft framework on Value Education has been developed. Art Education — teacher's handbook for Classes VI to VIII was brought out. Monographs for teachers on various aspects of art education are under preparation. A source book on Human Rights was prepared and presented to the Chairperson of the National Human Rights Commission. A study on the overall position of social sciences was completed. Subject-wise status studies in social science subjects and commerce were initiated. A survey to study the status of language in the school curriculum in India with focus on language, curriculum, syllabi, textbooks and examination in an inter-related manner has been initiated.

Textbooks in history and political science of Karnataka, Maharashtra, Gujarat, Punjab, Bihar and a sample of Hindi and Urdu textbooks were evaluated from the standpoint of national integration. The aspect of Human Rights has been added recently in this evaluation work. Empirical evaluation (try-out) of four NCERT textbooks in social sciences (one each in history, geography, economics and civics) has been undertaken in the Demonstration Schools attached to the RIEs. A programme on 'What Education for What Citizenship' as a part of an international survey conducted by the International Bureau of Education of UNESCO was undertaken. Awards of XXVIII National Prize Competition for Children's Literature (held during 1994-95) were given to 24 authors and 13 artists/illustrators.

## Examination Reform

A national meeting of the chairpersons and secretaries of selected State Boards of School/Secondary Education was organised to discuss the draft national framework of Examination Reforms and Minimum Physical Facilities in Schools. In order to find out the practicability of the scheme of Continuous Comprehensive Evaluation in schools, tryout of the scheme was undertaken in two schools in Delhi. Qualitative Analysis of Pupils' Errors in Boards' Examinations of Class X and its impact on Pupils' Achievement was undertaken in collaboration with the CBSE. A study of Analysis of Question Papers of Class X in Social Studies of the Boards of Secondary Education of Haryana, Jammu and Kashmir, Rajasthan, and CBSE was conducted. NCERT faculty's expertise was provided to several organisations in educational evaluation, training of personnel, development of sample question papers, etc.

## Educational Psychology, Counselling and Guidance

Based on identification of cases successfully handled by the trainees of the Post-Graduate Diploma Course in Guidance and Counselling in the last five years, steps are being taken to bring out a book on counselling cases depicting utility of some counselling skills and techniques to handle problems of Indian school children. Studies on (i) Adolescents' Perception of Social Norms, (ii) Predictive Potential of the Selection Procedures for Performance in the Counsellor Training Programmes and On-the-Job Performance, (iii) Guidance Research in India, (iv) Counsellor in the Making: Status and Development, and (v) Vocational Behaviour of Creative Girls are in progress. A critical study of Educational Psychology Curriculum of Elementary Teacher Education in India was undertaken. A check-list to analyse science textbooks of secondary stage was prepared. Abstracts of studies included in the *Indian Psychological Abstracts* were collected and analysed. Based on the study, a draft paper titled 'Psychology in India: Challenges and Prospects' was prepared. The outcomes of the study 'Role of Acculturation in the Development of Values

among Children: Maternal Views' inter alia revealed that children are valued for different groups of respondents for different reasons, and parents emphasised on the indigenous value patterns. The report of the project 'Analysis of Educational Occupational Information: A Study of Three Leading Newspapers' was brought out.

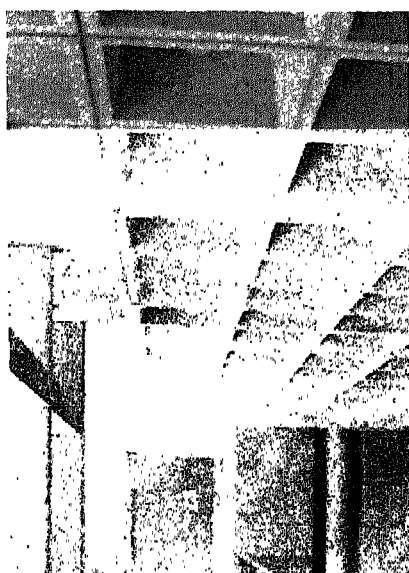
The 34th Post-Graduate Diploma Course in Guidance and Counselling was concluded on 28 April 1995 and 35th Diploma Course commenced on 4 September 1995.

## Teacher Education

Quite a large number of programmes of the constituents of the NCERT are devoted to orientation/training of teachers. The Regional Institutes of Education (RIEs) are organising both pre-service and in-service training of teachers. The RIEs, as pace-setting institutions in pre-service professional education of teachers, are conducting four-year pre-service teacher education course in science education and one-year M.Ed. course with specialisation in Elementary Education. Other pre-service teacher education programmes like four-year B.A., B.Ed; one-year B.Ed. in Science and Commerce, and M.Sc. (Education) in Life Sciences, Physics, Chemistry and Mathematics are being phased out by stopping fresh admissions from 1995-96 session. The RIEs provide academic and resource support in all aspects of school education related programmes to the states and UTs under their geographical jurisdiction.

As regards in-service education of teachers, the constituents of the NCERT, including RIEs, generally undertake programmes related to identification of training needs of teachers, development of training packages, and training of key persons/resource persons from the states for transmission of training through cascade mode and distance mode of transmission. An overview of academic inputs to the in-service teacher education programmes provided by the Department of Teacher Education and Extension (DTEE) and the RIEs during 1995-96 is given below. Inputs to in-service teacher education programmes by other constituents of the NCERT are reflected in other paragraphs in the chapter.

A study of human resource development climate in DIETs was undertaken. The factors studied include trust, responsibility, risk-taking behaviour, top support feedback, supportive HRD climate, openness vs. communication, team spirit and collaboration and reward. A pilot study on Appraisal of Training Methodology used in pre-service training programmes revealed that classroom transaction of theory papers was generally done through lecture-cum-discussion/demonstration/question-answer methods. Training in various teaching skills was imparted through lecture-cum-demonstration method followed by immediate feedback after the delivery of the lesson. Assessment of the functioning of Colleges of Teacher Education (CTEs) was done with the help of a questionnaire and discussions in a meeting of the principals of CTEs.

A performance appraisal tool for teachers was developed to assess their performance in classroom teaching, participation in evaluation, innovations/contributions in classroom teaching, improvement of professional competencies, action research, participation in corporate life and curriculum evaluation. A national workshop was organised to evolve a fresh code of professional ethics for teachers in the light of changing role of teachers. A conceptual framework of the Curriculum for M.Ed. (Elementary) was prepared. A work plan for IASEs was developed which inter alia includes training inputs required for qualitative improvement on teacher education. A blueprint of the proposed scheme of teacher centres of the MHRD was developed.

The NCERT has recently established a new Regional Institute of Education (RIE) at Shillong in order to cater to the educational needs of the North-Eastern states. A two-day meeting of the Directors of SCERTs/SIEs of these states was convened to discuss their educational needs and development of Action Plan for providing academic support by the new RIE. Training of principals of DIETs was organised to help them perceive their roles and to enhance their capabilities. A training programme for the DIETs' faculty was also organised to develop their capacity in preparation of instructional materials, institutional management and administration, MLLs, learner-centred approach, educational technology, multigrade teaching and education of children with special needs.

A National Conference of the Directors of SCERTs/SIEs was organised to assess the difficulties faced by them in implementation of the centrally sponsored schemes of education. The participants were *inter alia* exposed to some of the programmes of common interest of SCERTs and different constituents of the NCERT. Among other things, it was suggested that a suitable mechanism may be developed for closer linkages between the RIEs and the SCERTs/SIEs with a view to improve the quality of teacher education.

Under the scheme 'Innovative experiments and practices in teacher education', a national seminar of awardee teacher educators was organised where they presented their papers and received awards. During 1995-96, 78 papers from teacher educators and 235 papers from school teachers were received for the All India Competition.

The **RIE, Ajmer** assisted the State of Rajasthan in developing models of pre-school education suited to rural, tribal and remote areas and developing activities suited to children of the age-group 3-5. Teaching learning strategies for multigrade schools and a training package for key resource persons for teaching of social sciences were developed. Issues and problems related to pre-school education have been identified and strategies are being developed for improving pre-school education programmes at DIET and SCERT levels. With a view to providing research-based training interventions designed to enhance learners' vocabulary and their powers of expression, a comparative study of vocabulary achievements in English of the students of Classes IV and V of the Demonstration Multipurpose Schools is being carried out. Exemplar materials on problem-solving competencies in physics were developed. Studies on analysis of common errors in mathematics, physics and chemistry at the +2 level were completed. A study on content load in science and mathematics of senior secondary schools of J and K was undertaken. In the context of Science and Technology Society (STS) approach to teaching science, modules and assessment instruments were developed. Practice sets in financial accounting based on the syllabus of the Board of Secondary Education, Ajmer were developed. A study on 'Development of classification reasoning using computers' was completed. Under DPEP, training packages in Hindi, mathematics and environmental studies were developed for Haryana and Uttar Pradesh. Guidelines on the roles of Village Education Committees (VECs) and Village Panchayats in promoting Universal Primary Education (UPE) were developed and specific training inputs to strengthen VECs'role in promoting DPEP were identified. Personnel from DIETs for Haryana and Uttar Pradesh were trained in the techniques and strategies of action research. Numeracy and reading readiness levels of Class I entrants were identified. The research projects commissioned to provide interventions to the DPEP include empowering primary teachers for effective classroom transaction; (ii) Study of role perception of VEC members of DPEP districts in Haryana in terms of community participation in school management; (iii) Effect of learning processes on learning outcomes, and (iv) Comparative study of three-tier and two-tier teacher training models with reference to district and spill-over benefits. Key concepts having envrionmental orientation were identified and modules covering nine thematic sections were developed in the context of the scheme of Environmental Orientation to School Education.

The **RIE, Bhopal** is conducting diagnostic studies on learners achievement in the MLLs. Guidance package for low achievers to reduce drop-out at primary stage and exemplar research designs, tools, and

procedures for conducting cooperative research by DIET are being prepared. Key persons/teacher educators are being trained in the analysis of pupils' errors. The State Education Department, Madhya Pradesh is being assisted in their programme of Universalisation of Primary Education, particularly in the context of (i) Non-formal education of out-of-school children in the age-group 9-14, (ii) Development of alternative schooling systems suited to migrating population of rural and tribal areas, and (iii) Development of instructional materials in five tribal dialects and in Urdu. To provide educational inputs to the DPEP, assistance is being provided through development of instructional materials and training of DIETs personnel, particularly in the area of education of the disabled children. Assistance is being provided to the Rajiv Gandhi Prathmik Shiksha Mission in developing innovative practices in curriculum transaction in NFE centres. Two research projects (i) Evaluation of Ashram schools, and (ii) A study of 15 special schools which cater to the educational nees of talented tribal and scheduled caste children, are in progress. Key persons from SCERTs and DIETs were trained in identification and nurturance of talent at the primary and secondary levels. Assistance is being provided to the SCERT, Bhopal and the Rajiv Gandhi Prathmik Shiksha Mission in developing training packages for guidance of talented children. Projects on various aspects of education of girls in rural, tribal and remote areas were designed. With a view to improving teaching of science and mathematics, activities pertaining to (i) development of diagnostic tests, (ii) action research at the grassroots levels, and (iii) capacity-building programme in evaluation and training were undertaken. A study on 'Analysis of pupils' errors in physics, chemistry and mathematics', was conducted for developing remedial material for teacher training and improving the question papers. A source book on Teaching Methods in Physics at +2 level was developed. The task of developing tools to assess industrial manpower needs relevant to vocational streams at +2 level was undertakn to facilitate recast of the vocational education programme. Survey tools to ascertain status and training needs were prepared. Training materials for master trainers were developed in the context of the centrally sponsored scheme on 'Environmental Orientation to School Education'.

*Assistance is being provided to the SCERT, Bhopal and the Rajiv Gandhi Prathmik Shiksha Mission in developing training packages for guidance of talented children.*

The **RIE, Bhubaneswar** is developing for the DIETs of Orissa a training package for teaching English using MLL approach for Classes IV and V. A status study 'Vocabulary achievements in English of the Demonstration Multipurpose Schools' primary stage students', was undertaken. Inputs were provided to DPEP through development of (i) exemplar materials in language and mathematics, (ii) supplementary learning materials in mathematics for Classes I and II, and (iii) Reading Ability and Comprehension Enhancement (RACE) Package, and documentation of (i) researches done and materials developed in the areas of Reading and Mathematics, (ii) multigrade teaching, and (iii) in-service training practices in India and abroad. The training materials available in north-eastern states were evaluated. Key persons from the DPEP states in the region were trained. Training materials on Environmental Orientation to School Education for use in the in-service training programmes conducted by DIETs for teachers of primary and upper primary schools were developed. These will be translated in regional languages of the eastern states to facilitate their contextual use.

The **RIE, Mysore** conducted a study on 'Identification of primary teachers' training needs in mathematics' for development of training packages. The developmental activities include: (i) Development and field testing of competency-based pupil evaluation materials in mathematics at upper primary level, (ii) Development and try-out of intervention studies for

qualitative improvement of teaching-learning in multi-grade setting in primary schools, (iii) Designing and developing modalities for implementing, and (iv) Development and try-out of cooperative learning-based package on teaching environmental studies. Orientation programmes for key resource persons for implementation of the scheme of the Integrated Education of the Disabled (IED) in the primary schools were conducted. A training package for training of DIETs faculty in management of learning disabilities was prepared. Two two-week courses that aimed at development and try-out of a training package for teaching of physics and mathematics in Class X as per revised curriculum of the state were organised. Documentation of (i) in-service training practices in India with special reference to southern states, (ii) researches done and materials developed in the area of multigrade teaching, (iii) researches and good practices in the area of reading and mathematics learning in early grades was completed. Documentation of exemplar instructional materials in Kannada language for Classes I and II is in progress. Work on identification of number and reading readiness level of Class I entrants was completed. Textbooks and instructional materials developed by the DPEP states in he southen region were evaluated. Supplementary learning materials in mathematics for Classes I and II and a RACE package were developed and field-tested. Other developmental activities include: (i) Development and try-out of training package in the techniques of scoring, tabulation and processing of research data for BRC coordinators and cluster heads of DPEP districts, (ii) Development of training package for teachers based on identification of teaching learning difficulties in mathematics in Class I of Tamil Nadu schools, (iii) Development of training package in mathematics for primary school teacher trainers, and (iv) Development of training package in environmental studies for primary school teacher trainers. A research project titled 'Pattern of values related to family life education held by adolescents and quality of family life' under the National Population Education Project was conducted. Training materials in English for use in the teachers' training programmes of the DIETs and other training institutions at the primary level were developmed in the context of the centrally sponsored scheme of Environmental Orientation to School education.

The **Demonstration Multipurpose (DM) Schools** attached to the RIEs act as laboratories for trying out innovative practices in school education and teacher education. The teacher trainees in the RIEs undergo practical training in DM schools. These schools inter alia offer vocational courses at the +2 level, viz. Structure and Fabrication, Basic Electronic Teaching, and Office Management and Secretarial Practice. These schools are implementing from 1995-96 session the programme of competency-based teaching with an action research approach to ensure attainment of Minimum Levels of Learning (MLLs) by students. A four-day conference of the primary school teachers of the DM schools was organised at RIE, Mysore which provided a forum for them to present papers related to experiment and exchange of ideas and experiences. With a view to provide feedback for improvement, the DM schools have undertaken empirical evaluation (try-out) of four NCERT textbooks, one each in history, geography, economics and civics.

## Vocationalisation of Education

Two vocational courses have been newly designed and developed. Six vocational courses have been revised at the request of the Joint Council of Vocational Education, MHRD for moving towards standardisation. Thirty-seven textbooks and practical manuals for eight courses have been developed. A curriculum for Generic Vocational Courses for +2 academic stream students has been developed. Two documents, one containing guidelines for establishment of Production-cum-Training Centres in schools and other an Orientation Guide to different aspects of vocational education programme for the use of key functionaries of states have been developed. A modest beginning was made towards production of multi-media packages for the most popular vocational courses. A study on 'Assessment of skilled manpower needs in health sector' was completed. Two inter-state field seminars were organised to acquaint state officials with the implementation of the vocational education programme. Two national meetings, one on Business and Commerce

Education and other on Home Science Education, were organised. In order to promote vocational education, awards for best vocational teachers, students, schools and collaborating institutions were instituted.

Twelve orientation programmes on vocationalisation of education and two orientation programmes on pre-vocational education for key functionaries were organised. A two-week training programme for key functionaries from 10 implementing states on vocational education was conducted for vocational staff development. Seven teacher training programmes of 3-4 weeks duration in the areas of Commerical Garment Designing and Making, Maintenance and Repairs of Radio and TV, Dairying, Banking, Food Preservation and Processing, Automobile Engineering and Entrepreneurship Development were organised. A sub-regional workshop to establish UNEVOC clearing house and electronic network in the Asia-Pacific region was organised by the Adelaise Institute, IAFE in collaboration with PSSCIVE (India). A National Centre for Vocational Education Information (NCVEI) to promote a national, regional and international network of vocational education system and services has been established at PSSCIVE, Bhopal. Extension lecture of eminent educationists and academicians to share ideas and experiences in technical and vocational education were organised.

## Educational Technology

A major area of work of the NCERT is to promote educational technology particularly the mass media for improvement and spread of education in the country and for development of alternative system of education. As a premier institution in educational technology, the Central Institute of Educational Technology (CIET) of the NCERT is concerned with the development of video and audio programmes, films and low-cost materials, training of personnel in educational technology, media planning, script writing, programme production and technical operations, evaluative research, documentation and dissemination of information and materials, and consultancy in application and development of educational technology.

CIET feeds a daily transmission of ETV service in Hindi titled *Tarang* for children and teachers at the primary stage, particularly in rural areas, from 10.15 a.m. to 11.00 a.m. The daily transmission was monitored to observe the quality of programme, capsuling, continuity and linkages among programmes and extent of recitation of programmes, etc. A special programme titled *Patron Ke Uttar* was designed for giving response to viewers' letters. Activities related to development of educational software comprising ETV programmes, audio programmes, 16 mm films and low-cost teaching aids continued. During 1995-96, 93 new ETV programmes for children and teachers at the primary stage were produced. The emphasis remained on production of theme-based programmes to support learning of minimum levels of competencies, particularly in environmental studies and mathematics. Four ETV programmes to support the training needs of the departments of NIE were produced and two more programmes are under production. Based on experts' working group meetings, a series of 12 ETV scripts were finalised. The programmes based on these scripts are at various stages of production. Eighty-two programmes were produced under different series of support education at the school stage. English and Hindi versions of films titled 'Ranges of Neelgiris and Animals', Part I and II were completed. Films titled 'Vibrant Ranges' and 'Solar Eclipse' have been completed. A film on 'Tribes of Garhwal' is nearing completion.

Ten workshops/training programmes were organised mainly for improving production and technical skills and identification of topics/themes for

audio/video programmes briefs and scripts. A four-week training course was organised for orientation of academics and programmes officers of CIET and SIETs in the area of educational technology, ETV script writing and video production. Forty-five educational audio/radio programmes addressed to children in the age-group 3-7 were broadcast through 10 stations of Akashvani. There is also a weekly broadcast of the CIET programmes for 10 minutes through 10 Hindi Radio Stations of Akashvani.

The CIET regularly sends capsules of ETV programmes to Doordarshan for telecast on the Primary and the Metro channels in the afternoon hours. Three hundred and seven programme capsules containing 872 ETV programmes were sent to Doordarshan for transmission. SIETs in Orissa, Andhra Pradesh, Gujarat and Maharashtra provided similar ETV telecast service in their respective regional languages.

Hindi and English versions of selected video programmes to provide support to the Special Orientation for Primary Teachers (SOPT) were prepared. Regional language versions of these programmes are being prepared. A special innovative project to provide in-service orientation to primary teachers of Karnataka through interactive distance mode using teleconferencing technique, i.e. one-way video and two-way audio return channel through telephone or FAX was designed and operationalised. The programme was conducted by the NCERT in collaboration with ISRO and IGNOU using their satellite uplink facilities and TV studio. Relevant curricular concepts were identified and a series of 36 ETV programmes were produced for use as inserts in the teleconferencing sessions.

Two thousand copies of the document *Mathematics Club Activities* were printed and distributed to State Education Departments, SCERTs, SIETs and DIETs, etc. The material included in the document is based on 45 articles published in the newspaper *The Hindu*, highlighting new innovations in mathematics teaching at the primary school stage.

The NCERT participated in the International Film Festival held in Tokyo, Chicago and Thiruvananthapuram and sent a set of selected video/film programmes to each of these competitions. One of the CIET's programmes entered for the competition in the Japan International Educational Video Contest was selected for special preview and discussion in the follow-up Workshop at Colombo.

## Computer Education and Technological Aids

The Integrated Science Kit (ISK) developed by the NCERT is now a part of Operation Blackboard (OB) for elementary education. The existing science kit was reviewed and some kit items were refined and new kit items were included. Manuscripts for Teacher's Handbook of Science Activities for Classes VI, VII and VIII have been prepared. Molecular Model Kit in chemistry for senior secondary schools was reviewed along with its manual.

In the context of developing basic technical skills in the non-formal education students, the first draft of the curriculum for training of Inspectors was prepared. An energy source for illuminating classrooms for Non-Formal Centres in villages was developed. The components of technology education to be included in the NCERT textbooks for the lower primary level were identified. During the year 1995-96, 859 Primary Science Kits (PSKs), 131 Integrated Science Kits (ISKs) and 384 Mini Tool Kits (MTKs) were despatched to various demanding states and UTs. Seven hundred ISKs are under production. Modification of Mathematics Kit is in hand. A Question Bank (discs) for Secondary Science BBC Micro was prepared. Steps are being taken for in-house development of CAL software. A book entitled *Computer Literacy* has been published.

## District Primary Education Programme

The objective of District Primary Education Programme (DPEP) is to develop and implement in the districts selected, a replicable, sustainable and cost-effective programme so as to (i) reduce differences in enrolment, drop-out and learning achievement among gender and social groups to less than 5 per cent, (ii) reduce overall primary drop-out rates for all students to less than 10 per cent, (iii) raise average achievement levels by at least 25 per cent over measured baseline levels,

ensuring achievement of basic literacy and numeracy competencies and a minimum of 40 per cent ahievement levels in other competencies by all primary school children, and (iv) provide, according to national norms, access for all children to primary education classes (I to V), i.e. primary schooling, whenever possible, or its equivalent non-formal education.

The DPEP is being conducted in the states of Assam, Haryana, Maharashtra, Kerala, Karnataka, Tamil Nadu and Madhya Pradesh. Steps are being taken to cover additional states for which inputs from the NCERT may be required.

The NCERT is providing academic and professional support to the DPEP, particularly in the areas of curriculum, training and pedagogy, and research through resource groups specially formed for this purpose.

Baseline Assessment Studies (BAS) under DPEP in the states of Andhra Pradesh, Bihar and West Bengal were planned, designed and completed during 1995-96. The reports of these studies were made available to the MHRD and other concerned authorities. The progress of the BAS in the states of Himachal Pradesh, Orissa and Gujarat was observed and monitored. Training of the state resource teams and master trainers in various operations of the conduct of BAS was organised.

Documentation of (i) research and materials in the area of Multigrade Teaching, and (ii) researches and good practices in the area of reading and mathematics learning in early grades was completed. The reports have been disseminated. A study on 'Identification of numeracy and reading readiness levels of Class I entrants' was completed. A manual for writers of textbooks, workbooks and teachers' handbook was developed. Prototype textbooks and teachers' handbooks were developed. Try-out of the material is in progress at regional level through RIEs. Supplementary learning materials in mathematics for Classes I and II were developed. Guidelines for material development with a view to enhance Reading Skills and Comprehension (RACE) were prepared and sent to the four RIEs for development of RACE package. Tools for evaluation of competency-based material have been prepared and sent to the RIEs for evaluation of the instructional material developed under the DPEP.

A design in content-upgradation, pedagogy for quality improvement and awareness about UEE and for recruitment of primary teachers and resource persons has been developed. Training inputs in these areas for different functionaries have been delineated. Highlights of the training design were shared with State Project Directors of the DPEP states. In-service training practices in vogue in government and non-government organisations have been documented. Two workshops were organised for the appraisal of design and material developed by DPEP states for training of primary teachers and other functionaries. Among other things, the appraisal report has recommended that the states should assess the training needs of personnel through research studies and consider specific inputs for trainers. It has been pointed out that content enrichment of primary teachers has not been given due emphasis. The training designs developed by different states do not specify explicitly the objectives of training.

An International Seminar on School Effectiveness and Learning Achievement at Primary Stage was organised at New Delhi from 17 to 19 July 1995. The proceedings of the seminar and the papers discussed in the seminar have been published and widely disseminated. A training package to empower primary teachers to adopt action research approach to tackle day-to-day teaching learning problems was developed. The package was used in a training workshop for primary teachers organised in Assam. A conference of Primary Teachers on Competency-based Teaching was organised.

Under a World Bank sponsored study, various types of interventions planned and implemented by the DPEP states for meeting educational needs of tribal children were reviewed and analysed in terms of improvement in enrolment, retention and achievement and reduction in drop-out rates. The results of the study are being utilised in planning education for tribal children in the DPEP districts. Another World Bank sponsored study was undertaken as a derivative study by extrapolating data from various DPEP studies. The

study inter alia highlighted the need for tribe-wise planning instead of district-wise planning, decentralisation of curriculum in the cultural context of tribes concerned, instructions in the mother tongue of the child (tribal dialect) in the initial two years of schooling with a mechanism of transition to the state language and orientation of teachers in the concerned tribal dialects and the cultural ethnic background of the tribes concerned.

Reports on DPEP Gender Studies for the States of Assam, Haryana, Madhya Pradesh, Maharashtra, Karnataka, Kerala, and Orissa were preapared along with an overview.

## Population Education

A draft package of basic materials on population education was developed. A book of readings on 'Family, Society and Population' was finalised. Draft of training package for Non-Formal Education Instructors was prepared. The training package on AIDS was translated in Hindi. A background paper of NPEP beyond the third cycle was prepared and sent to concerned national, state and international agencies. An intensive training programme for NPEP project personnel from the states was organised. Co-curricular activities in population eudcation at state and district levels were coordinated particularly in the context of 'World Population Day', 'Population Education Week', and 'World AIDS Day'. The national component of the International Poster Contest on Population Education was organised.

A mid-term evaluation of the NPEP was conducted. Three research studies in population education sponsored earlier were received, synthesised and circulated. The NPEP activities were reviewed in the annual Project Progress Review (PPR) meeting. Work plans and budget estimates for the ensuing year were prepared. Quarterly progress reports on NPEP from the states/UTs were reviewed, consolidated and sent to all the concerned agencies. A bibliography on AIDS education was prepared and disseminated. A one-month training programme for five principal coordinators and a two-month training programme for two curriculum developers for the Iranian Population Education Project personnel were organised under UNESCO sponsorship. An attachment programme in population education for two teacher educators from Ghana was also organised. An inter-country study visit programme for the project personnel from Sri Lanka was coordinated.

## Area Intensive Education Project

Under the Area Intensive Education Project (AIEP) for human resource development, a meeting of BDOs/BEOs and a planning meeting of Coordinators and Heads of Multipurpose Resource Centres (MPRCs) was organised. A document titled *People on the Move* under the AIEP has been published.

## Environmental Orientation to School Education

A long-term plan for promotion of environmental education as an integral part of curriculum has been developed. An orientation programme for experts associated with curriculum development in the Boards of School Education was organised. Programmes for development of materials for use of DIETs for providing environmental orientation to school education to the primary and upper primary stage teachers were undertaken.

## Identification and Nurturance of Talent

The NCERT is conducting two major Talent Search Programmes, viz. (i) The National Talent Search (NTS), and (ii) The Jawahar Navodaya Vidyalaya Selection Tests (JNVST). Under the NTS scheme, the NCERT awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and to give them financial assistance towards getting good education. During 1995-96, after conducting the state level and the national level selection test, NTS scholarships were awarded to the 680 general category candidates and 70 SC/ST candidates. Total number of awardees getting scholarships from the NCERT at various stages of education (+2 stage, under-graduate level, post-graduate level including basic science, social science, engineering, medicine, management and doctoral

degree) was 4342 and the amount of the scholarship disbursed was Rs 92,11,905.

The NCERT provides technical support to the Navodaya Vidyalaya Samiti (NVS), MHRD to select students for admission to Class VI in Jawahar Navodaya Vidyalayas (JNVs). During 1995-96, the NCERT conducted three selection tests in the months of May and September 1995 and in Fabruary 1996. The medium of the test is mother tongue or regional languages. The test is non-verbal, class-neutral comprising of three sections (60 items of mental ability and 20 items each of arithmetic and language). Of the 4,51,429 candidates registered for the test, 4,12,485 appeared, and 25,775 were selected for JNVs. Of these, 8,873 were girls. The number of selected candidates from rural and urban areas were 19,710 and 6,065 respectively. As per criteria laid down for selection of students for admission in JNVs, at least 75 per cent of the seats in each district are to be filled by candidates from rural areas and not more than 25 per cent of the seats are to be filled by the candidates from the urban areas. The scheme envisages reservation of minimum 15 per cent seats for the SCs and 7.5 per cent seats for STs subject to a maximum of 50 per cent of the seats for SCs and STs combined depending upon the proportion of the SC and ST population of the districts. The scheme also stipulates 33 per cent reservation of seats for female candidates.

## Promoting Educational Research/ Innovations

Apart from the constituents undertaking research, the NCERT provides financial assistance to outside institutions/organisations for research in priority areas. Eight research projects supported by ERIC were completed during 1995-96. The work on four research projects undertaken by the constituents of the NCERT and 38 research projects undertaken by outside institutions/ organisations continued. Three Ph.D. theses were published with assistance from ERIC during 1995-96 and fresh publication grants were sanctioned for four Ph.D. theses. Research, innovations and other developments in the field of school education and teacher education are inter alia disseminated through *Journal of Indian Education, Bharatiya Adhunik Shiksha* and *Indian Educational Review.*

Trend Reports under the Fifth Survey on Educational Research are being finalised. Biannual Indian Educational Abstracting Service is under implementation. This includes Ph.D. studies and other published research with implications for improvement in school education.

## Educational Surveys

The Provisional Statistics of the Sixth All India Educational Survey (with 30 September 1993 as the reference date) were released by the Union Minister of HRD in December 1995. Steps are being taken to prepare a detailed survey report.

## International Cooperation

The NCERT continued to work as a major agency for implementing bilateral Cultural Exchange Programmes (CEPs) in the field of school education and teacher education. During 1995-96, educational materials under CEPs were supplied to the Governments of China, Hungary and Syria. Educational materials received under CEPs are displayed in the International Resource Centre located in DLDI, NCERT headquarters, New Delhi.

Several members of the NCERT faculty were deputed/permitted to participate in various programmes held in several countries which were sponsored by UNESCO and certain other international organisations/countries. The NCERT faculty interacted with delegates, educationists and teachers from several countries who visited India. Training/guidance was provided to Fellows from some countries under the UNESCO sponsored attachment programmes.

## Field Services

The Field Advisers, NCERT continued liaison functions pertaining to implementation of programmes and activities undertaken by various constituents of the NCERT, MHRD, and State Education Departments, etc. Assistance was provided for the programmes of the Regional Institutes of Education pertaining to identification of educational needs of the states requiring NCERT 's inputs. The Field Advisers, NCERT

provided assistance to the State Education Departments in the context of selection of teachers for national awards, development of curricula and instructional materials, training of personnel and policy formulation, etc. Assistance was also provided to the MHRD inter alia in the context of (i) monitoring of implementation of the centrally sponsored schemes in the states, (ii) pre-sanction appraisal of NFE proposals submitted by voluntary agencies, and (iii) assessment of functioning of the NFE voluntary agencies running NFE Centres through Joint Evaluation Teams (JETs).

## Library and Documentation Services

The Library, Documentation and Information Division (DLDI) at the NCERT headquarters continued supporting research and development activities of various constituent units of the NCERT. Other constituents of the NCERT are also maintaining libraries at their campuses. Over the years, a rich collection of books and periodicals in the field of education and allied disciplines has been created for use by scholars, teacher educators, teachers and students, etc.

A two-day meeting of expert librarians was organised by Division of Library Documentation and Information (DLDI) to consider the draft manual for Organisation and Management of School Libraries. The draft manual is being revised in the light of suggestions. A six-day workshop was organised by DLDI for development of libraries of DIETs of Tamil Nadu in collaboration with DTERT, Madras.

## Programme Planning, Monitoring and Evaluation

The Head of each Constituent/ Department of the NCERT continued monitoring of implementation of the approved programmes. The programmes of certain constituents were also monitored by the Director/ Joint Director, NCERT. The entire process of planning and implementation of programmes of various constituents of the NCERT is a sort of collaborative venture of the NCERT and the states. In order to streamline the process of planning, monitoring of implementation and evaluation, a framework was prepared and sent to the Education Secretaries of all the states and the UTs for comments and suggestions regarding its adoption/adaptation.

In this context, a regional meeting was organised at SCERT, Pune in February 1996 which inter alia deliberated on (i) modus operandi for identification of educational needs of the states by the Regional Institutes of Education (RIEs) requiring NCERT's inputs, and (ii) alternative models for interaction among the constituents of the NCERT and State Education Departments.

The NCERT continued submitting periodical reports and returns about the progress of programmes and activities to the MHRD. Interim reports of the studies (i) States' Perception of the NCERT's Programmes, and (ii) School Education in North-East: Status and Identified Areas of Action were brought out.

## Publication

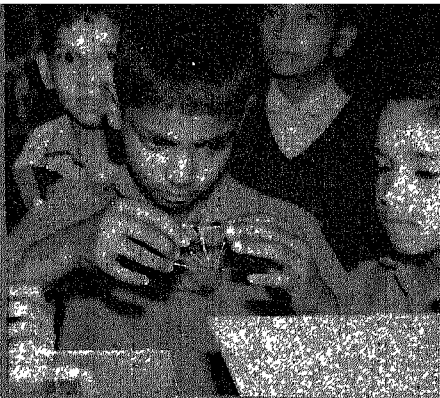
The NCERT continued publication of instructional materials for school education (textbooks, workbooks, supplementary readers, teacher's guides), exemplar instructional materials in vocational education, research reports/ monographs, and educational journals. During 1995-96, 345 publications were brought out. Net receipt from the sale of NCERT publications during the year was Rs 23,69,60,527.74. The sale of the NCERT textbooks was undertaken through a network of 52 wholesale agents. The Urdu publications were distributed and sold through the Urdu Academy, Delhi Administration, Delhi. The Regional Production-cum-Distribution Centres (Ahmedabad, Shukchar and

Madras) continued production, sale and distribution of the NCERT's publications in their respective regions (Western, Eastern, Southern). The requirements of the Northern region were met from the NCERT headquarters at New Delhi. Copyright permission for adoption/adaptation/reprinting, etc. of some of the NCERT textbooks was given to several State Textbook Bureaus/Boards of School Education. The NCERT inter alia exhibited its publications in several national and international book fairs/exhibitions. The details of publications of the NCERT are given in Appendix IV.

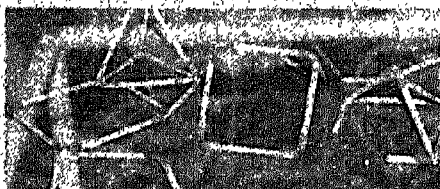
**Promoting Use of Hindi**

In order to promote and accelerate the progressive use of Hindi in day-to-day working of the Constituents of the NCERT, a booklet titled *Hindi Prayog Sahayika* has been developed in two volumes. Workshops were organised at the NCERT headquarters, the Regional Institutes of Education and the Field Offices of the NCERT to promote the use of Hindi. Efforts and strategies to maximise the use of official language in the office work were discussed in two meetings of the Official Language Implementation Committee. 'Hindi Fortnight' was organised from 14 to 28 September 1995. During this period, typing, shorthand, noting and drafting, translation, essay writing and poetry competitions were organised in which 120 officials participated. The MHRD was periodically apprised of the progress of use of Hindi through quarterly progress reports, and observations of the MHRD on the reports were placed before the Official Language Implementation Committee of the NCERT.

**Welfare Activities**

The LIC's Group Saving Linked Insurance Scheme (GSLIS) continued to be operationalised for NCERT employees. The Annual Sports were organised from 19 to 22 December 1995 at the Regional Institute of Education, Bhubaneswar.

# 3

# PRE-SCHOOL EDUCATION

*The NCERT continued facilitating the state-level activities like training programmes, material development, trying out of innovative ideas and research activities. Emphasis remained on strengthening ECE component of ICDS and developing a cadre of resource persons in ECE. The states have also established ECE Cells in DIETs.*

*Learning by doing*

# Pre-School Education

Recognising the two-fold significance of Early Childhood Education (ECE) — its direct influence on development of the child and its potential contribution to the goal of Universalisation of Elementary Education (UEE) — the ECE project has been focussing on discovering and developing inexpensive non-formal and effective media of educational and entertainment value for the pre-school and early primary level children as also developing state-level expertise and strengthening of programmes in this area. The capacity building is being done through training of personnel at various levels and development of suitable teaching learning material for children and teachers in regional languages. The ECE project is being run in the states of Bihar, Goa, Karnataka, Madhya Pradesh, Maharashtra, Nagaland, Orissa, Rajasthan and Tamil Nadu. The states of Uttar Pradesh, Andhra Pradesh and Gujarat have Resource Centres in ECE.

The major thrust of ECE project during recent years remained on: (i) strengthening and upgrading of ECE Cells in the states into State Resource Centres in ECCE; (ii) qualitative improvement in programmes of ECE both in the governmental and non-governmental sectors; (iii) strengthening pre-school education component of ICDS; (iv) try-out of materials and training and monitoring strategies in the context of ICDS through adoption and close intervention in ICDS clusters; (v) training of key functionaries of ICDS, voluntary agencies and DIETs; (vi) promotion of the concepts of child-centred, development-oriented curriculum and play and activity approach at the pre-primary and early primary stages; and (vii) preparation/ production and dissemination of region-specific materials in regional languages for children, teachers/ workers, teacher educators and parents. The activities were focussed on the age-groups: (i) infancy 0-3, (ii) pre-school 3-6 years; (iii) early primary grades 6-8 years.

The major thrust of activities during 1995-96 in the states remained on: (i) status studies related to pre-school education component of ICDS, (ii) promoting linkage of ECE activities with ICDS and activities of voluntary organisations; (iii) creating awareness for community participation through parents' education programme and home stimulation activities; (iv) training of Anganwadi workers; (iv) conducting in-service training programmes for Supervisors and Community Development Programme Officers (CDPOs); (vi) expanding the activities of ECE through networking and collaboration with government organisations and NGOs; (vii) implementing school readiness programes; and (viii) developing materials for Anganwadi workers, children and trainers. Highlights of the ECE activities at the NCERT headquarters during 1995-96 are as follows.

**Intervention in ICDS Project**

An impact study of intervention in ten ICDS projects was completed. Monitoring of the project continued.

**Study of Pre-School Education Component of ICDS and its Perception and Extent of Utilisation by the Community**

After developing tools for the study, state level ECE Coordinators were oriented. The data collected is being analysed at the state level.

**School Readiness Package**

A video film was developed as a part of the school readiness package. The package, along with printed charts, booklets, etc. is to be tried out in the fields.

**Advocacy Programmes in Pre-School Education**

Advocacy programmes for right kind of play-based pre-school education continued. In the chain of such programmes in different cities of the country a programme was organised in Kota during 1995.

**Coordination with 12 ECE States**

The NCERT continued facilitating the state-level activities like training programmes, material development, trying out of innovative ideas and research activities. Emphasis remained on strengthening ECE component of ICDS and developing a cadre of resource persons in ECE. The states have also established ECE Cells in DIETs. Some significant activities undertaken by the states are:

- School Readiness Programme in Andhra Pradesh, Madhya Pradesh, Tamil Nadu and Gujarat.
- Pre-School Education Programme for Jail Children in Madhya Pradesh.
- Establishment of ECE Cells in DIETs in Madhya Pradesh, Rajasthan, Tamil Nadu and other states.
- Formation of District, Regional and State Coordination Committees under ECE Project in Rajasthan.
- Strengthening of linkages between pre-school and primary school in Nagaland.

The annual plans for the ECE programmes in the states are developed in consultation with the NCERT. Monitoring of implementation is done through half-yearly review meetings.

**ECE Resource Centre Activities**

The ECE Resource Centre (ERC), located in the Nursery School in the Indian Institute of Technology (IIT) Campus, New Delhi is conducting programmes and activities under the guidance of the NCERT. It organises workshops/short-term orientation programmes for local pre-school teachers who have become members of the ERC. A quarterly newsletter *Soojh-Boojh* is also published for participating teachers.

## Regional Level Inputs to Pre-School Education

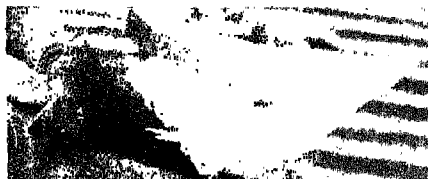
The RIE, Ajmer is assisting the State of Rajasthan: (i) in developing models of pre-school education suited to rural, tribal and remote areas; (ii) contributing to the Integrated Child Development Scheme (ICDS) and the Early Childhood Care and Education (ECCE) project at the state level; and (iii) developing activities suited to children in the age-group of 3-5. Issues and problems related to pre-school education have been identified and strategies are being developed for improving pre-school education programme at the DIET and the SCERT levels.

## Reports and Other Materials Brought out during 1995-96

- Reprint of CML material (12 Picture Books, 2 Board Games, 1 Set of Cards)
- School Readiness Kit (revised version) (under print)
- Guide for Anganwadi Workers (under print)
- Stimulation Activities for Young Children (Hindi version) (under print)
- ECE Programme (Hindi version) (under print).

4

# PRIMARY EDUCATION

*A guidance package for low achievers to reduce drop-out rate at primary level is being developed. A study on 'Identification of primary teachers' training needs in mathematics' for development of training packages has been conducted. Teaching learning strategies for multigrade schools with special focus on teaching mathematics in multigrade situations have been designed.*

## Primary Education

Within the broad frame of Universalisation of the Elementary Education (UEE), significant emphasis is being given on issues and problems related to primary education. Based on empirical and rational considerations, the document Minimum Levels of Learning (MLLs) at Primary Stage has been revised. The revised document also includes the MLLs in the areas of art education, work experiences and health and physical education, besides languages, mathematics and environmental studies. A National Documentation Unit (NDU) for Pre-school and Elementary Education has been set up at the NIE for collecting, collating, documenting and disseminating relevant information in the areas of pre-school and elementary education. Manuscripts of the quarterly newsletter *Glimpses* were prepared. The material collected for the Documentation Unit has been catalogued. Development of charts and posters is in progress. Publication of quarterly journals *The Primary Teacher* (in English) and *Primary Shikshak* (in Hindi) continued.

Under the longitudinal research study 'Process-based intervention programme for number readiness at primary stage', data were collected from children who had participated in the study of Grade IV level. In the context of development of competency-based teaching learning material, a national workshop of functionaries of various government and non-government agencies including those from DPEP states was organised to provide a forum for sharing of experiences. Among other things, the workshop aimed at arriving at a consensus regarding the nature, process and trialling modalities of competency-based textbooks and other instructional materials.

A 20-day Teachers' Training Programme for Primary Teachers of the four Demonstration Multipurpose (DM) Schools attached to the RIEs was organised at the NCERT headquarters, mainly to launch the programme of competency-based teaching learning. A tool to monitor the activities was developed. Another four-day conference of the DM schools teachers provided them a forum to share experiences among colleagues and faculty of the NCERT. Among other things, guidance was provided on some vital components of the curriculum such as :

- Tools and procedures for diagnosing weaknesses of the students and developing material for providing remedial teaching.
- Developing activities, specially in non-scholastic areas, to make teaching learning strategies more effective.

The NCERT continued providing academic assistance and guidance to the Municipal Corporation of Delhi (MCD) on various aspects of the Education For All project. Enrolment drives and people's mobilisation activities were undertaken. A baseline study of the competencies achieved by the children within the framework of the MLLs was undertaken followed by a brief study to identify the reasons for non-achievement of competencies by children. Handicapped children who need special education were also identified.

Training in MLLs child-centred approach and Activity-based teaching was provided to the teachers of Classes I-II of three Kendriya Vidyalaya Primary Schools followed by monitoring and intervention. Monthly meetings were organised for providing forums for teachers to share their experiences and demonstrating activities. Action plans were also prepared for ensuing months to ensure adequate progress and completion of the course.

Academic resource support in the conduct of teachers' training programmes of the Atomic Energy Central Schools was provided. Forty-two resource persons (principals and senior teachers) were trained. it was followed by a regional level teachers training programme.

**NCERT-IGNOU Project on Development of Distance Education**

The NCERT-IGNOU collaborative project on development of distance education material in different learning areas at primary stage for initial training of primary school teachers, targetted to provide training to untrained teachers in primary schools, mainly for the north-eastern region, Sikkim and West Bengal, is in progress. Under the MOU signed between the NCERT and IGNOU, the responsibility of developing different modules for the diploma course in primary education rests with the NCERT. Printing of modules and launching of the programme will be undertaken by the IGNOU. The programme is proposed to be launched in three different modules:

| | |
|---|---|
| Module I | Certificate in Primary Teaching |
| | Credit weightage: 16 credits |
| | Duration: 6 months |
| Module II | Certificate in Primary Curriculum and Instruction (CPC) |
| | Credit weightage: 18 credits |
| | Duration : 6 months |
| Module III | Diploma in Primary Education (DPE) |
| | Admission Requirement: Successful completion of Module I and Module II |
| | Credit weightage : 30 credits |
| | Duration : 12 months |

This course includes two theory courses of 8 credits — 4 credits each and practical courses.

Four courses under Module I have already been developed and submitted to IGNOU for content editing. Draft material for three different courses under Module II are under preparation.

## Regional Level Inputs to Primary Education

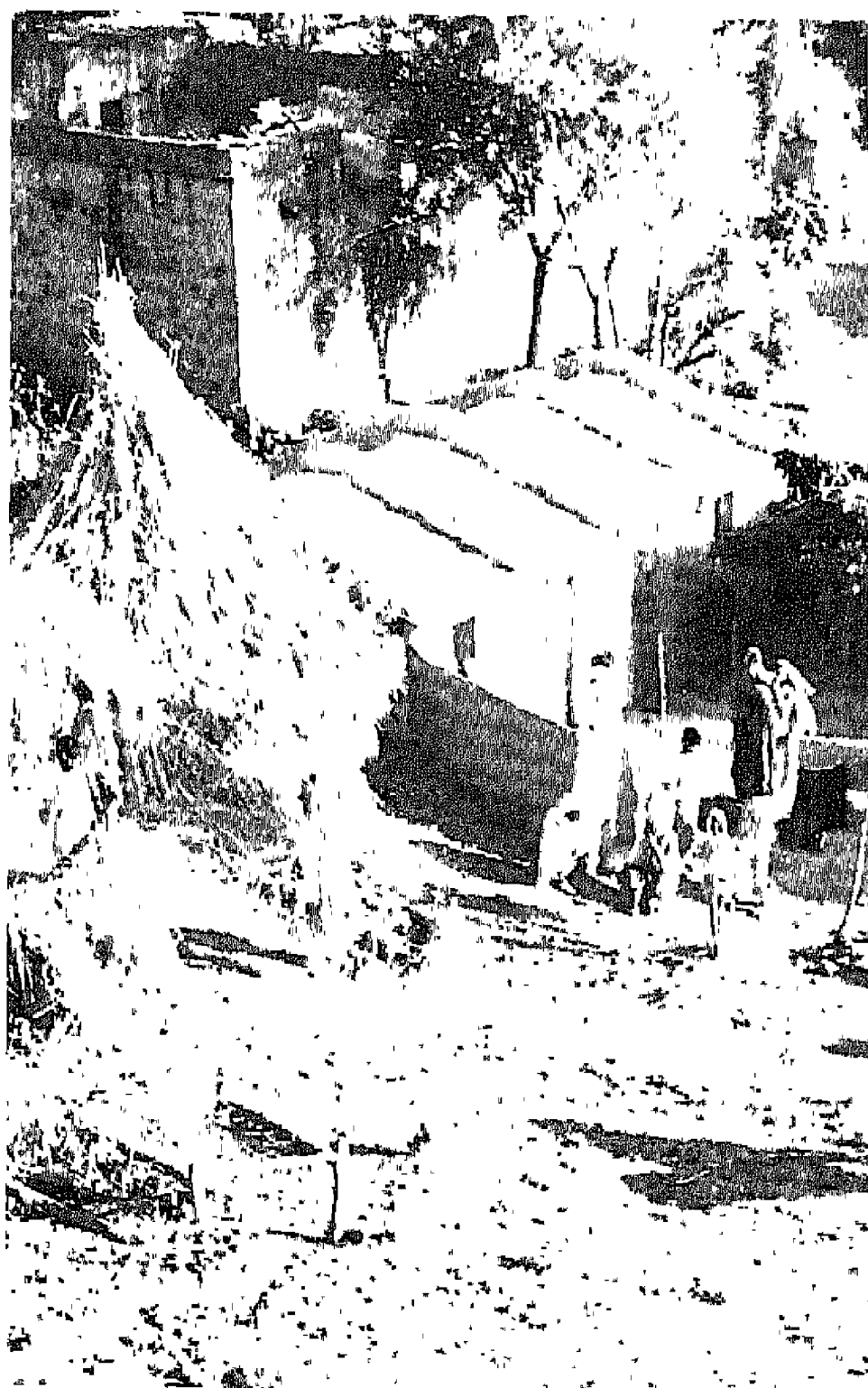
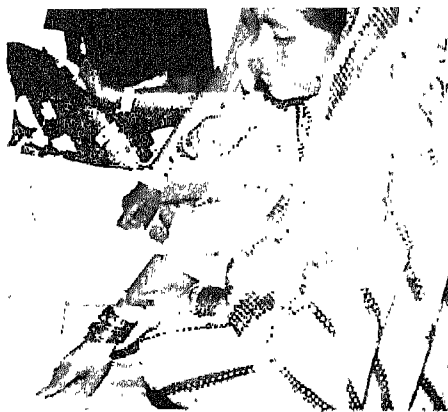
The RIE, Bhopal is conducting diagnostic field studies on learners' achievement in the context of MLLs. A guidance package for low achievers to reduce drop-out rate at primary level is being developed. Exemplar research design, tools and procedures for conducting cooperative action research by DIETs personnel are being prepared. Key persons/teachers educators are being trained in (i) key concepts and methodologies in primary education and (ii) analysis of pupils' errors at primary level, particularly for capability building for achieving the goal of universalisation of primary education and achievements in the light of MLLs.

The RIE, Bhubaneswar is developing a training package for teaching English using MLL approach for DIETs faculty of Orissa for Classes IV and V. A status study on 'vocabulary achievements in English' of the DM school's primary stage students belonging to lower, middle and higher income groups of society and suitable remediation for Classes IV and V was undertaken.

The RIE, Mysore conducted a study on 'Identification of primary teachers' training needs in mathematics' for development of training packages. The developmental activities include: (i) Development and field-testing of competency-based pupil evaluation materials in mathematics at upper primary level, (ii) Development and try-out of intervention studies for qualitative improvement of teaching-learning in multi-grade setting in primary schools, (iii) Designing and developing modalities for implementing continuous and comprehensive evaluation in primary schools, and (iv) Development and try-out of cooperative learning-based training package on teaching environmental studies.

The RIE Ajmer designed teaching learning strategies for multigrade schools with special focus on teaching mathematics in multigrade situations. A training package for key resource persons for teaching of social science was developed. With a view to providing research-based training intervention designed to enhance learners' vocabulary and their power of expression, a comparative study of vocabulary achievement in English of the students of Classes IV and V belonging to lower, middle and higher income groups of the DMS is in progress.

## *Reports and Other Materials Brought out during 1995-96*

- Readability of Primary Level Textbooks Volumes I and II (World Bank sponsored) (xeroxed)
- Multigrade Teaching: Status and Implication (xeroxed)
- Minimum Levels of Learning at Primary Stage (xeroxed)
- Evaluation Tools for Competency-based Instructional Material (xeroxed)
- Numeracy and Reading Readiness Levels of Entrants to Class I in Delhi (xeroxed)
- Guidelines for Material Development for Enhancing Reading Skills and Comprehension (xeroxed)
- Process-based Programme for development of Number Concept (xeroxed)
- Documentation of Good Practices in Reading and Mathematics in Primary Grades (xeroxed)
- *The Primary Teacher/Prathmik Shikshak* (quarterly journals)

# 5

# NFE AND ALTERNATIVE SCHOOLING

*The NCERT made conscious efforts towards creating a strong resource base at the voluntary and state-level organisations through regional process-oriented programmes. Personnel from voluntary organisations of different states were oriented for training of NFE functionaries. Training was provided for scrutiny and analysis of MLLs-based NFE materials.*

## Non-Formal Education and Alternative Schooling

To place the Non-Formal Education (NFE) on sound footing, the NCERT has been concentrating on resource development through preparation of teaching learning materials, training of personnel and identification of strategies for alternative schooling. Highlights of research, development, training and extension activities in NFE are as follows.

### Research

Studies on street and working children continued. Based on the findings of the study, steps were taken for development of prototype learner-specific, skill-based, teaching learning materials. The main findings of the study are :

1. A variety of educational designs were evolved by the institutions/organisations covered under the study. Some of these programmes gave wider skill orientations to the learners. But in large number of cases, attainment of academic competencies for entry into formal schools was the main focus of the programmes and activities.
2. The organisations did not evolve detailed curriculum frames for planning instructional strategies, preparation of materials, teacher upgradation process and pupil evaluation design.
3. The educational materials were based on the environmental situations in and around the learners. But in the majority of cases, these materials were not attractive and suitable for the target groups.
4. Adequate emphasis was not given on the learner-centred approach.
5. The teachers did not find themselves properly equipped for handling teaching-learning situations and attending to learners' special needs.
6. Expansion of operational activities gave rise to coordination and management problems.
7. Level of community involvement varied from organisation to organisation. There was need for evolving proper strategies for enlisting community support for strengthening of educational programmes.

#### *Study of Programmes for Education of Street and Working Children*

The main findings of the study that have significant bearings on the designing of educational programmes and curriculum planning are:

1. The educational programmes are mostly of three years' duration. In some organisations the skill training is provided at a later stage.
2. In some cases modified formal school curriculum and materials are used with inclusion of some local-specific materials in the form of bulletins, magazines, thematic modules, etc.
3. In some organisations, a separate set of curriculum and learning materials have been developed for education of street and working children jointly by the State Resource Centre and NGO Forum. These are activity-based integrated learning materials. Besides Primers, some books on specific vocations have also been developed and are in use.

4. There are some organisations where separate set of Primers for NFE Learning Centres are not available. These organisations use Adult Education, State Resource Centre's Primers as well as Total Literacy Campaign (TLC) materials.
5. The instructional materials are of general type which fail to reflect the learning needs of specific groups of learners.
6. The children attending educational programmes are mostly engaged in unorganised sectors of economy or are self-employed as porters, labourers, rag-pickers and tea-shop workers. Some are engaged in plantation activities, some work as house maids, and some of them work in auto-repair shops and road-side restaurants, etc.
7. The street and working children engaged in various types of unorganised sectors in urban and rural areas would like to attend some form of part-time functional educational programmes. Such programmes, according to them, must provide, along with other learning skills, some pre-vocational skills so as to provide them opportunities for better earning.
8. Majority of these children find multiplication and division very difficult.
9. Variations in mother tongue and medium of instruction create learning difficulties to a large extent.
10. Street and working children mainly working as rag-pickers, coolies and scavengers, prefer some alternative employment opportunities to ensure better earning which would relieve them from their present miseries.
11. All children (in all the four states of Andhra Pradesh, Kerala, Tamil Nadu and Karnataka) want to continue their education through non-formal modes of learning.
12. Parents prefer vocational education and job-oriented educational programmes for their children.
13. Community leaders prefer suitable skill-oriented educational programmes for children.
14. Teachers urgently feel the need for adequate and suitable teaching learning materials and teaching aids.
15. The teachers feel strongly about the need for adequate and proper training for handling teaching/learning situations effectively.
16. Employees also feel that education is necessary for handling work situations effectively provided it does not interfere with their work timings.
17. Education in related trades/crafts was preferred by all employees.

## Learner-Specific, Skill-based Teaching Learning Materials **Development**

Under the research study on street and working children, efforts were made to identify the basic skills and competencies attained by various categories of such children. Some vocabulary lists were also collected from various organisations dealing with street and working children. Based on the analysis of skills and vocabulary lists criteria, guidelines and some designs for development of learner-specific, skill-based teaching learning materials were developed. Draft materials in the following areas were developed:

- Health and body care
- Identification and use of plants, specially herbs for body maintenance
- Converting waste into useful materials
- Identification of agricultural tools and processes differentiating between scientific and traditional modes of agricultural activities

- Preparation of cards (based on vocabulary of various categories of street and working children) and a core Primer.

The materials are being tried out in actual field situations and refined. A series of finalized instructional package for various categories of street and working children is likely to be brought out shortly.

### Resource Development

The NCERT made conscious efforts towards creating a strong resource base at the voluntary and state-level organisations through regional process-oriented programmes. Personnel from voluntary organisations of different states were oriented for training of NFE functionaries. Training was provided for scrutiny and analysis of MLLs-based NFE materials. Ten training programmes for development of resource support were organised during 1995-96. Practical training was given for effective transaction of teaching/learning materials in NFE centres. Regional versions of NFE training package provided basis for discussing issues related to organisation of a variety of teaching/learning activities and strengthening efficiency levels of NFE centres.

### Development of Teaching Learning Materials

A package of materials in Hindi based on MLLs consisting of 12 books for four NFE semesters at the primary level was developed and sent for printing. Six books under the 'local-specific materials series' in the form of popular stories, poems, children's games, proverbs, and riddles are at the final stage of printing. In the next phase, finalisation and printing work of Kannada, Telugu and Malayalam, local-specific series, which has been developed adopting the design of Hindi series, will be taken up. These books aim at creating a joyful learning climate in the NFE centres.

Under the project on 'development of NFE training materials', developmental work was completed for second and third cycles of NFE programmes.

### State Profiles of NFE

During 1995-96, data pertaining to NFE scheme at the policy, practice and perception levels from the states of Orissa, Bihar and Uttar Pradesh were collected and consolidated.

### Films on NFE

Two films titled *Gopal Padhney* Laga and *Hari Seekh Gaya* have already been produced. The third film in the series on teaching of language is being processed. The script of the film for teaching of numeracy was modified.

## Training of NFE Faculty of SCERTs

At the state level, under the revised NFE scheme, the SCERTs are the nodal agencies for providing academic and technical support to NFE functionaries at different levels. The SCERTs have been assigned special roles in overseeing the programmes and activities of DIETs and DRUs (District Resource Units) both at the governmental and NGOs levels.

During recent times a number of developments have taken place in the area of elementary education specially in non-formal education. The NCERT has the responsibility of exposing the state-level nodal agencies to the latest trends in NFE in order to prepare them for their emerging responsibilities. The NCERT has evolved a curriculum framework for training of NFE faculty of the SCERTs particularly for upgradation of competencies of the concerned NFE personnel for performing their roles and functions. During 1995-96, two orientation programmes were organised for SCERTs of Hindi-speaking states (Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, Haryana and Delhi).

## Training of DIETs/DRUs Faculty

A training manual for DRUs was developed. New trends and strategies of NFE programme in the context of Education for All, specially under the DPEP, are highlighted in the programmes of training of personnel. Analysis of the teaching learning materials and demonstration of various field activities are some of the main features of training programmes. During 1995-96, DRUs personnel of Madhya Pradesh were oriented.

## Extension and Other Programmes

### Evaluation of the Working of Voluntary Agencies

At the instance of the MHRD, NCERT has undertaken the task of managerial evaluation of voluntary agencies receiving grants from the MHRD for implementation of the centrally sponsored NFE scheme. The Department of NFE and Alternative Schooling and the Field Advisers of the NCERT are coordinating the work of the JETs. The work of the majority of voluntary agencies (out of approx. 550) has been evaluated. The NCERT is also coordinating the work of pre-sanction appraisal of NFE projects submitted by the voluntary agencies to the MHRD for grants-in-aid under the NFE scheme. During 1995-96, nine proposals of voluntary agencies of Delhi were appraised.

**Community Singing Scheme**

The revised Community Singing Scheme, approved by the MHRD, envisages the teaching of six songs in the schools in every state/UT. Of these, three songs, viz. *Jana Gana Mana, Sare Jahan Se Achcha* and *Vande Matram* would be common throughout the country. The other three songs would be from amongst the locally popular songs to be selected by each state/UT. The MHRD has suggested implementation of this revised scheme in some selected primary and upper primary schools to begin with. In pursuance of these suggestions, the singing scheme is to be tried out in two districts of Orissa on an experimental basis. The CIET, NCERT has recorded the three songs common for all the states, in an interactive mode. Earlier, the songs were tried out in some schools of Delhi and finalised in the light of the feedback.

Teaching of community songs with the help of audio cassettes in Delhi has been completed. The final report is being prepared. Findings of a study conducted in Bhubaneswar with the help of SIET, Orissa suggest that community songs can be taught to students with the help of audio cassettes.

### Annual Conference on NFE

The Annual Conference on NFE was organised on 27 and 28 February 1996. The conference concentrated discussion on emerging issues such as (i) NFE in the Ninth Five Year Plan; (ii) Role of NGOs in NFE; and (iii) DPEP and NFE and Alternative Schooling. The recommendations of the conference are being used in evolving strategies to meet the problems of the states implementing NFE programmes.

### Regional Level Inputs to NFE

The RIE, Bhopal is assisting the State of Madhya Pradesh in its massive programme of Universalisation of Primary Education spread over 21 tribal dominant districts and 24 other districts. The focus of the programme is on (i) Non-Formal Education of out-of-school children in the age-group 9-14, particularly the girl child, and (ii) developing alternative schooling systems suited to migrating population of rural and tribal areas. The RIE is also working with the Rajiv Gandhi Prathmik Shiksha Mission in developing innovative practices in curriculum transaction in NFE centres and developing schooling models suited to the remote areas of Madhya Pradesh.

### Reports and Other Materials Brought out during 1995-96

- Proceedings of the Annual Conference on NFE (being xeroxed)
- Milkar Seekhein Bhasha — Bhag III
- Milkar Seekhein Ganit — Bhat III
- Milkar Seekhein Parivesh III (under print)
- Milkar Seekhein Ganit, Bhasha Parivesh — Bhag IV and I (under print)

6

# EDUCATION OF GROUPS WITH SPECIAL NEEDS

*The NCERT is giving special emphasis on matters related to education of groups with special needs, such as scheduled castes (SCs), scheduled tribes (STs), minorities and disabled. A new Department of Education of Groups with Special Needs (DEGSN) has been created in the National Institute of Education (NIE) for providing focussed attention in this important area of work.*

## Education of Scheduled Castes, Scheduled Tribes and Minorities

With a view to hasten the process of Universalisation of Elementary, Eudcation (UEE), the NCERT is giving special emphasis on matters related to education of groups with special needs, such as scheduled castes (SCs), scheduled tribes (STs), minorities and disabled. Researches have shown that these sectors need special inputs inter alia to promote enrichment, retention and achievement among children of these groups. A new Department of Education of Groups with Special Needs (DEGSN) has been created in the National Institute of Education (NIE) for providing focussed attention in this important area of work. Highlights of programmes undertaken for education of groups with special needs are given below.

**A Study to Determine the Efficacy of Ashram Schools**

A Planning Group meeting was organised in which details of each activity of the project were worked out. Keeping in view the fact that there are a number of anthropological studies on Ashram Schools, it was decided to focus attention on teaching learning processes and classroom interaction and analysing them in terms of effectiveness. Steps are being taken to finalise the tools for the study.

**Training of Teacher Leaders and State Level Functionaries in Tribal Education and Teachers Working in Tribal Areas**

State-level functionaries of Orissa have been trained. Services of these trained persons are to be utilised to train the teachers working with tribal children in DPEP districts particularly to acquaint them with tribal culture and society.

**Tracer Study of NFE Passed Out Scheduled Caste Students**

The study was undertaken in eight districts of Madhya Pradesh. Findings of the study revealed the extent and efficacy of Non-Formal Education (NFE) in bringing out-of-school SC children into the mainstream of education and utilisation of NFE by SC children in their everyday lives.

**An Annotated Bibliography on Educational Development of the Scheduled Castes**

The bibliography has been prepared and disseminated to the concerned institutions.

**Supplementary Reading Material for Tribal Students**

Five supplementary readers on the Gond Tribes of Baster district of Madhya Pradesh have been developed.

**Analytic Study of NFE Teaching Learning Materials from the Standpoint of Scheduled Castes and Scheduled Tribes**

NFE materials of Uttar Pradesh, Himachal Pradesh, Rajasthan, Madhya Pradesh, Haryana, Bihar, Orissa, Andhra Pradesh and Andaman and Nicobar Islands were evaluated during past years. During 1995-96, NFE teaching learning materials of Assam and Andhra Pradesh were analysed.

### *Regional Level Inputs to Education of SCs/STs*

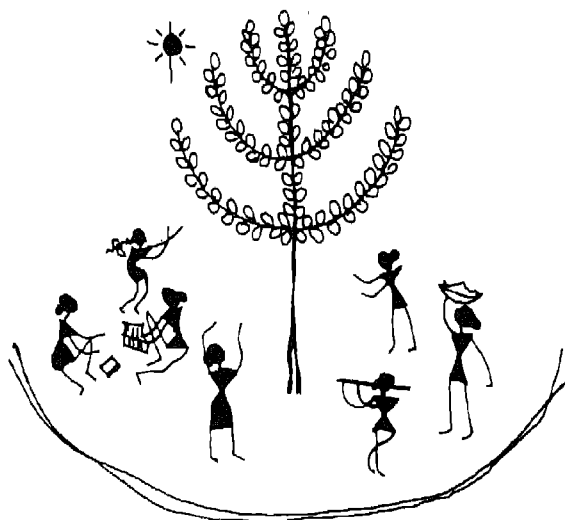
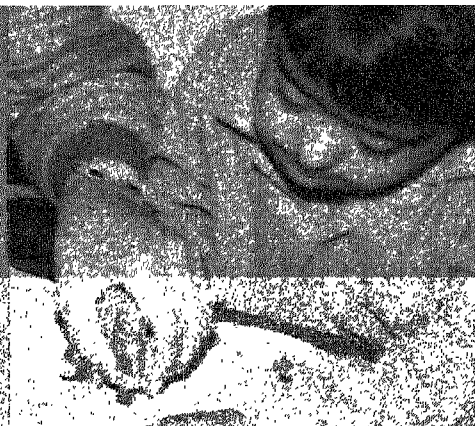
The RIE, Bhopal undertook research projects on (i) evaluation of Ahsram Schools and (ii) study of 15 Special Schools which cater to the educational needs of talented tribal and SC children. Instructional materials in five tribal dialects and in Urdu were prepared by the State of Madhya Pradesh with the assistance of RIE faculty.

## Education of Minorities

The following studies planned earlier are in progress:

- Development of Training Package for Key Persons for Teaching Learning in Minority Institutions
- Analysis and Modification of Curriculum in Maktabs/Madrasas
- A Study of Educational Benefits Derived out of the Government Programmes/Schemes for Minorities with Particular Reference to Muslims.

### *Reports and Other Materials Brought out during 1995-96*

- Annotated Bibliography on Educational Development of the Scheduled Castes (xeroxed)
- Review of Present Interventions (xeroxed)
- Tracer Study of NFE Passed out Scheduled Caste Students (xeroxed)
- *Baster Ki Gond Lok Kathain Aur Lok Geet* (for Class IV) (xeroxed)
- *Baster Ki Gond Lok Kathain Aur Lok Geet* (for Class V) (xeroxed)
- *Abujhmarrhia Jeevan Evam Sanskriti Ki Ek Jhalak* (For Class VI) (xeroxed)
- *Musia Jeevan Evam Sanskriti Ki Ek Jhalak* (For Class VII) (xeroxed)
- *Bison-Horn Marrhia Jeevan Evam Sanskriti Ki Ek Jhalak* (For Class VIII) (xeroxed)
- Evaluation Report of the Analytic Study of Teaching Learning NFE Materials of Assam and Arunachal Pradesh (handwritten)

7

# EDUCATION OF DISABLED CHILDREN

*Two urban slum areas from the Municipal Corporation of Delhi and Municipal Corporation of Baroda were included in the project in 1990. The major goal of the project was to bring all disabled children to general schools as far as possible. A significant outcome of the project relates to change in policy incorporating education of children with disability as integral component of programmes envisaged in the National Policy on Education (NPE) and the Programme of Action (POA).*

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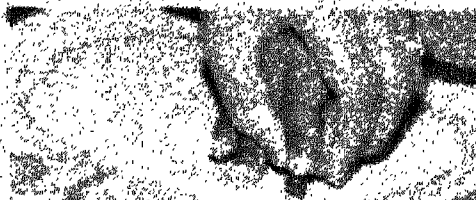

## Education of the Disabled Children

The Project Integrated Education for Disabled (PIED) was formulated to meet the needs of children with physical and intellectual disabilities, on the one hand, and make it responsive to educational needs of all children on the other. The project was launched in the states of Madhya Pradesh, Maharashtra, Nagaland, Orissa, Rajasthan and Tamil Nadu in 1987 and extended to the states of Haryana and Mizoram in the last quarter of 1988. Two urban slum areas from the Municipal Corporation of Delhi and the Municipal Corporation of Baroda were included in the project in 1990. The major goal of the project was to bring all disabled children to general schools as far as possible. A significant outcome of the project relates to change in policy incorporating education of children with disability as integral component of programmes envisaged in the National Policy on Education (NPE) and the programme of Action (POA). Other significant outcomes are:

> *A computer programme was developed to feed data in computer regarding each disabled child enrolled in common schools in all the 10 project states covered under the UNICEF-assisted PIED.*

- Planning and management know-how for preparing schools to meet educational needs of all children with special needs using Composite Area Approach, which has now become an essential part of the revised IEDC scheme of the MHRD.
- Content and process of teacher training to meet educational needs of all children in general schools.
- Development of instructional materials, both print and non-print, for use in teacher training programmes.
- Competency building in team of persons in the IED Cell in the state and project teams to implement the programme and effective implementation of the scheme of IEDC.

The participating states have brought out 30 publications in the regional languages. The NCERT has brought out six video programmes, four computer programmes and eight publications.

## Significant Programmes

During the year 1995-96, the following significant programmes were conducted under PIED.

**Management Information System Concerning IED**

Based on analysis of the data of the survey study, a publication titled *Integrated Education of Disabled in Common Schools* was brought out. The report contains statewise status reports about IEDC from 1992 to 1995. Some suggestive measures have been offered, and the status of IEDC implementation at a glance has inter alia been given. The project report has been sent to all the IED Cells, MHRD and other concerned agencies for using the data appropriately.

**Management Information System for PIED (UNICEF)**

A computer programme was developed to feed data in computer regarding each disabled child enrolled in common schools in all the 10 project states covered under the UNICEF-assisted PIED. Records of 1,705 disabled children are being maintained for research purposes.

**Conferences to Develop Plans for IED Implementation**

Two state-level conferences of Educational Administrators were organised to develop plans for IED implementation utilising PIED experiences and to strengthen IEDC implementation. These plans are at state and district levels and for PIED areas. The reports of these two conferences along with recommendations were sent to the MHRD, Directors of Education and the participants for implementation.

## *Regional Level Inputs for Education of the Disabled*

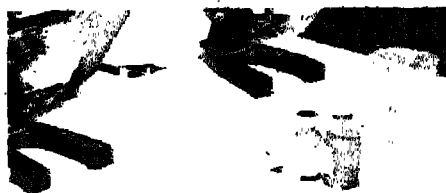
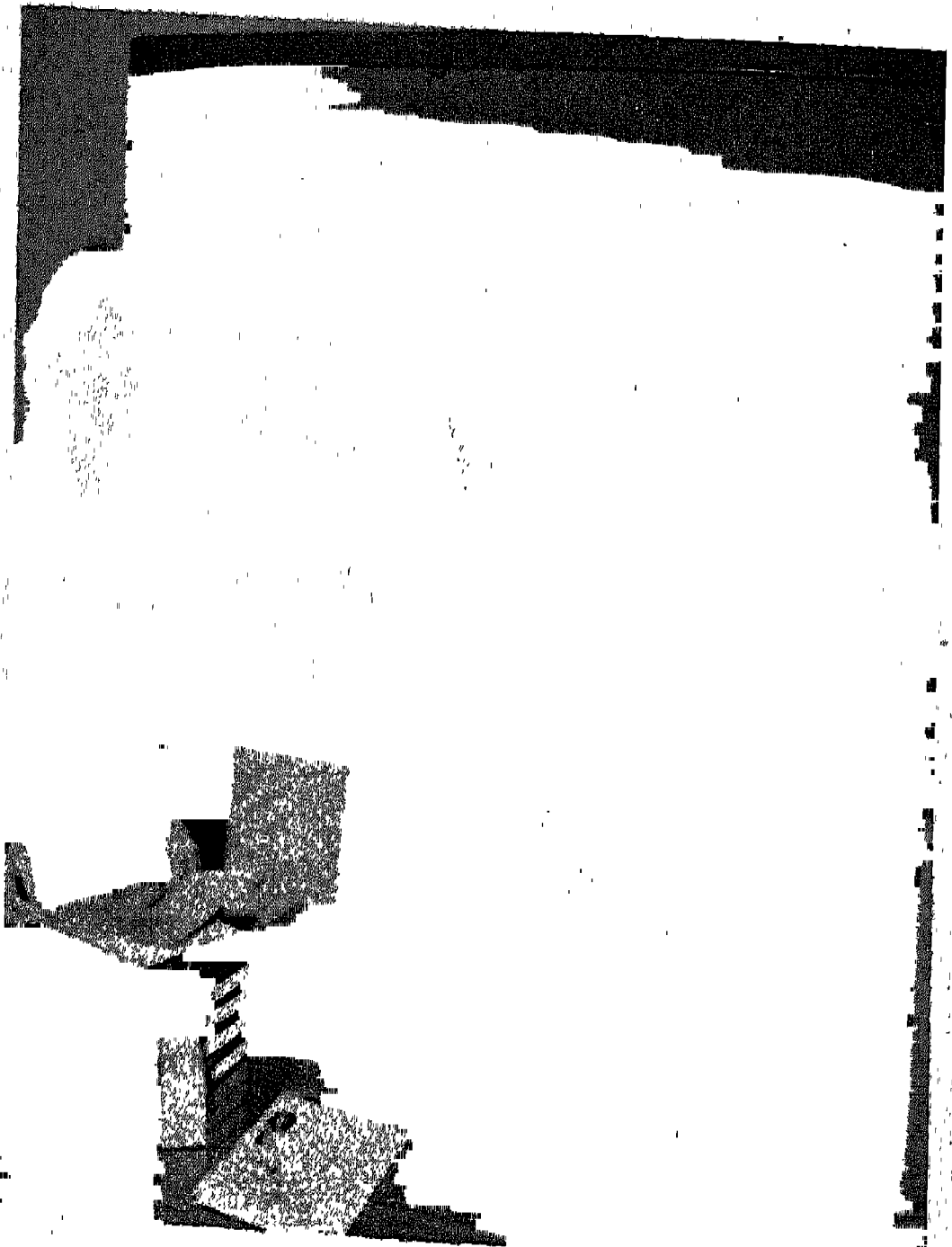
The RIE, Mysore conducted orientation programmes for key resource persons for implementation of the scheme of the IED in primary schools. Besides focusing on the characteristics of certain categories of disabled children, the programme also dealt with the classroom strategies to be adopted by primary school teachers for bringing about desired integration. A training package for training of DIETs faculty in the 'Management of learning disabilities' was prepared.

## *Reports and Other Materials Brought out during 1995-96*

- State level Conference of Educational Administrators to Develop Plans for IEDC Implementation Utilising PIED Experiences (xeroxed)
- Handbook on PIED (typed)
- Integration of Disabled in Common Schools (xeroxed)
- Report of the Evaluation of Teacher Education Programmes for ICDS Functionaries (typed)
- Evaluation Report of Multi-Category Teacher Training Programme (MCTTP) (typed)
- Learning Achievement of Children at the Primary Level: A Baseline Assessment Study in Two Districts of Maharashtra.
- In-service Training of Education Personnel in India: Some Practices ( Part I)

# 8

# THE GIRL CHILD

*NCERT textbooks of the primary stage were evaluated from the standpoint of gender bias and gender stereotyping. Exemplar materials consisting of 30 biographies of eminent women who contributed in the Freedom Struggle and social upliftment of women were prepared. A Fact Sheet on Education of Girl Child in India was published.*

*One of the participants of the six-week training course on Methodology of Women's Education and Development receiving a certificate from the Director, NCERT*

## Education of the Girl Child

The NCERT stands committed for promotion of girls' education and equality between sexes through suitable interventions in the school education curricula. Field work and analysis of data of the study on 'Identification of factors relating to recruitment and posting of women teachers in rural and remote areas was completed.

Six one-day workshops were organised for 360 teachers for giving them an open forum to express their views on recruitment and transfer problems faced by female teachers in rural areas. Interaction was made with more than 700 parents and members of the village, block, district and state level officials.

### *Training on Methodology of Women Education and Development*

Twenty participants drawn from 9 states, viz. Assam, Andhra Pradesh, Karnataka, Maharashtra, Manipur, Meghalaya, Orissa, Punjab and Tamil Nadu participated in a six-week training programme on the methodology of Women's Education and Development. Training manuals and materials were developed especially for this training programme.

Resource support was provided in gender training programmes organised by Haryana and Rajasthan and to several other organisations like NIEPA, NIPCCD, IAMR, Family Planning Association of India, Institute of Economic Growth, World Bank, UNESCO, UNFPA and UNICEF. NCERT textbooks of the primary stage were evaluated from the standpoint of gender bias and gender stereotyping. Exemplar materials consisting of 30 biographies of eminent women who contributed in the Freedom Struggle and social upliftment of women were prepared. A Fact Sheet on Education of Girl Child in India was published. Teacher's handbooks focussing on girls' education and women's empowerment for primary and upper primary school teachers were prepared. The Hindi and Urdu versions of the handbooks have been published and the English versions are under print. Work has been initiated on preparation of a Source Book on Development of Girls' Education and Women's Empowerment. UNESCO has published a volume of resource materials in gender training of primary teachers and head teachers titled *From Girl Child to Person*, prepared by a faculty member of the NCERT.

### *Regional Level Inputs to the Education of the Girl Child*

The RIE, Bhopal has designed projects for education of girls in rural, tribal and remote areas which inter alia include community awareness and participation, leadership by elderly women in villages, evaluation of textbooks from the standpoint of gender equality, school friendliness programmes and Village Education Committees (VECs) and panchayats to monitor and

supervise education of girl children, particularly the children coming from weaker sections of the society. The institute is providing basic educational inputs by way of guidance and capability-building of the teacher educators for education of the girl child.

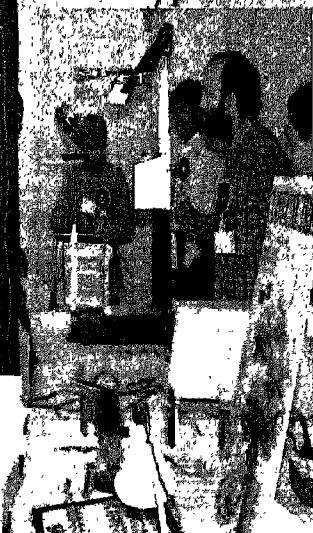
## *Reports and Other Materials Brought out during 1995-96*

- *Pathyakram Ke Madhyam Se Nari Samta Evam Adhikaron Ka Shikshan — Prathmic Istar Ke Liye Shikshak Sandarshika* (printed)
- Handbook for Urdu Teachers (printed)
- DPEP Gender Studies Reports of Eight States (Assam, Kerala, Karnataka, Maharashtra, Orissa, Tamil Nadu, Madhya Pradesh and Haryana) (typed and xeroxed)
- From *Girl Child to Person* (Published by UNESCO)
- Education of Girl Child in India, a Fact Sheet (published)
- Women who Created History (typed and xeroxed)
- Report of the Sixth Training Programme on Methodology of Women's Education and Development (typed and xeroxed)

# 9

# SCIENCE AND MATHEMATICS

*Programmes related to nurturance of talent in science and mathematics were initiated. Work related to laboratory-oriented activities for effective development of experimental skills as a part of teaching/learning of science at school stage was also initiated. A long-term plan for promotion of environmental education as an integral part of curriculum has been drawn.*

## National Science Exhibition for Children November 1995

*The Prime Minister, Shri P.V. Narasimha Rao, Prime Minister observing exhibits in the Jawahar Lal Nehru National Science Exhibition for Children organised in November 1995 at New Delhi*

## Education in Science and Mathematics

The NCERT has been making continuous and sustained efforts to improve the quality of science and mathematics education in schools. Revision of textbooks in science and mathematics for Classes VI to XII was undertaken. The work done will partly be utilised in reprint editions of the textbooks for 1996-97 session. The manuscript of a textbook on 'Computer Literacy' was developed. This pace-setter book will be utilised as a textbook throughout the country under the revised CLASS (Computer Literacy and Studies in School) Project. The revised textbook of Physics for Class XII is also a trend-setter for future textbooks production. The following three books on popular science under the 'Reading to Learn Project' were developed:

- *Gahan Samudra Mein Ek Khan—Bahudhatvik Pindo Ki*
- *Samudra : Kuber Ka Ek Bhai*
- *Upagraha Uvach*

Programmes related to nurturance of talent in science and mathematics were initiated. Work related to laboratory-oriented activities for effective development of experimental skills as a part of teaching/learning of science at school stage was also initiated. A long-term plan for promotion of environmental education as an integral part of curriculum has been drawn. Some conceptual material in this area has been developed. An orientation programme for experts associated with curriculum development in the Boards of School Education in the country was organised. The MHRD provided a grant of Rs 16.16 lakhs for development of materials for use of DIETs for providing environmental orientation to school education to the primary and upper primary teachers.

The following research-oriented programmes related to curriculum load were undertaken:

- Assessment of Curriculum Load in Mathematics at Upper Primary Stage.
- Assessment of Curriculum Load in Science at Upper Primary Stage.

A three-week special training programme for 80 science and mathematics teachers of Ladakh region was organised. About 40 teachers from Kendriya Vidyalaya and Navodaya Vidyalayas were trained in the use of computers as an aid for effective teaching learning of biology.

### *Improvement of Science Education in Schools*

A supplementary study to the evaluation of the scheme conducted in 1992 was undertaken at the instance of MHRD. The impact of the scheme was studied in the states of Karnataka and Rajasthan with the focus on the secondary stage of the school education. The study was accomplished through normative survey method

## National Science Exhibition for Children 1995

The Jawahar Lal Nehru National Science Exhibition for Children-1995 was organised in November 1995 at Delhi in collaboration with the Jawahar Lal Nehru Memorial Fund and the Government of NTC of Delhi. The objectives of the exhibition include: (i) exposing and encouraging scientific talent in children; (ii) making children realise the relevance of science to society, as well as their responsibilities as scientists of tomorrow; (iii) developing creative thinking, habit of exploration and promoting manipulative skills among children through self-developed models or simple apparatus; (iv) stimulating interest in science and inculcating scientific spirit in the younger generation; (v) encouraging the problem-solving approach and the development of appropriate technology especially for rural areas and integrating scientific ideas related to daily life situations; (vi) inculcating aesthetic sense and team spirit among the participants; (vii) popularizing science among the masses and creating an awareness of the role of science in socio-economic growth of the country; and (viii) developing appropriate techniques for communication of science.

following a cross-sectional approach. The findings of the study confirm that if implementation of proper training of teachers, adequate infrastructural facilities and rigorous monitoring are ensured, it provides for enormous promise to generate scientific climate in schools to inculcate scientific temper amongst children and improving teaching and learning of science in schools.

The NCERT faculty in science and mathematics offered consultancy to institutions like SCERTs, Boards of School Education, IGNOU, Open Schools, etc. by participating as resource persons in the programmes organised by them.

## *Regional Inputs to the Education of Science and Mathematics*

The RIE, Ajmer developed exemplar materials on problem-solving competencies in physics that depict a variety of problem-solving situations for developing higher order learning while transacting the subject. Studies on analysis of common errors in mathematics, physics and chemistry at +2 level were completed. Emerging evidences point out a baseline data system for formulating training inputs in these subjects. The content load in science and mathematics of Classes XI and XII of the Jammu and Kashmir Board of Secondary Education was studied with a view to minimise it. In the context of Science and Technology Society (STS) approach of teaching science, modules and assessment instruments to develop and assess abilities of students in the multiple domains of concept, process, application and perceptions have been developed.

The RIE, Bhopal inter alia undertook activities pertaining to development of diagnostic tests, action research at the grassroot level, and capability-building programmes in evaluation and training with specific reference to teaching of science and mathematics.

The RIE, Mysore organised two-week courses for the State of Kerala focussing on development and try-out of a training package for teaching of physics and mathematics in Class X as per revised curriculum of the state.

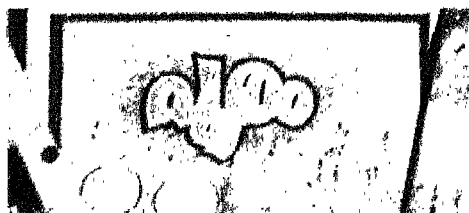
## *Reports and Other Materials Brought out during 1995-96*

- Physics Textbook Part I
- Physics Textbook Part II
- Computer Literacy

# 10

# SOCIAL SCIENCES AND LANGUAGES

*A study on the overall position of social sciences was completed. Draft report of the study was prepared. Subject-wise status studies in social science subjects and commerce were also initiated. A survey to study the 'status of language in the school curriculum in India' with focus on language curriculum, syllabi, textbooks and examination in an inter-related manner has been initiated.*

গাবলুর
বিজ্ঞান ডায়েরি

## Education in Social Sciences and Languages

In the social sciences and humanities, the NCERT has been focussing its programmes and activities towards research and development in curriculum and instructional materials, training and orientation of teachers and teacher educators and consultancy and academic support to the educational authorities of the States/UTs in the development and evaluation of curricula and instructional materials and studies for different stages of school education.

## Development of Curriculum and Instructional Materials

Following a detailed review of textbooks in social sciences and humanities, corrections and modifications were made in quite a few of them. Revised/new versions of Hindi textbooks (*Bal Bharati* for Classes I and II and *Kishore Bharati* and Supplementary Readers for Class VI and social science textbooks (part of the civics textbook for Classes IX-X and history textbook titled *Contemporary World History*) were finalised. Preparation of English language textbooks for Classes I to IV and civics textbook for Class VI was undertaken. Review of three textbooks in geography (Classes VIII, X and XII) and the syllabus and textbooks in sociology for Classes XI-XII was initiated so that new or revised versions of textbooks in these subjects could be completed during 1996-97.

A syllabus in General Studies as a core area for higher secondary stage was developed. A draft framework for value education has been prepared. In the context of art education, camps in different parts of the country were organised and a *Teacher's Handbook in Art Education* for Classes VI to VIII was brought out. Instructional materials in the form of monographs for teachers on various aspects of art education are under preparation. A syllabus of consumer education is being prepared along with suggestions for plug points for integration with syllabi for other subjects. In the area of education in human rights, a study of status position, including a critique and main directions for improvement in the area was undertaken. A Source Book on Human Rights was prepared and presented to the National Human Rights Commission.

Under the 'Reading to Learn Project', the NCERT has almost completed work on a few books under the series. The books are likely to be brought out shortly.

## Status Studies

A study on the overall position of social sciences was completed. Draft report of the study was prepared. Subject-wise status studies in social science subjects and commerce were also initiated. A survey to study the 'status of language in the school curriculum in India' with focus on language curriculum, syllabi, textbooks and examination in an interrelated manner has been initiated. Under the Sixth All India Educational Survey, data on implementation of the three-language formula in the country have already been collected.

## Evaluation of Textbooks

Work on evaluation of textbooks from the standpoint of national integration continued. The aspect of human rights has recently been added to this exercise. History and political science textbooks of Karnataka, Maharashtra, Gujarat, Punjab and Bihar, and a sample of Hindi and Urdu textbooks were evaluated and the evaluation reports were placed before the National Steering Committee. The empirical evaluation of four NCERT textbooks in social sciences (one each in history, geography, economics and civics) has been undertaken in the Demonstration Schools attached to the RIEs.

**National Prize Competition for Children's Literature**

The award-winners of the XXVIII National Prize Competition for Children's Literature (held during 1994-95) were invited at the NCERT headquarters for receiving awards in a function held on 31 July and 1 August 1995. Of the 817 entries received in all the 19 languages for the age-groups 5-8 and 9-15 years, 24 books/manuscripts were selected for awards. Recepients of the awards included 24 authors and 13 artists/illustrators.

## Programme for an International Survey

During 1995-96, a programme on 'What education for what citizenship' as a part of an international survey, conducted by the International Bureau of Education of UNESCO, was undertaken. This programme was the fourth in the series. Earlier three programmes were on: (i) Preparation of report on the reorientation and reform of secondary education, (ii) study on the implementation of the 1974 recommendations of UNESCO on international education, and (iii) a volume called 'Come Visit My Country'.

## Training Programmes

Training programmes in social sciences and humanities were organised as per demand from the states. Faculty members have also been extending help and expert services in training programme organised by other organisations such as SCERTs and NGOs.

### *Regional Level Inputs to Education in Social Sciences and Languages*

The RIE, Bhopal has developed activity-based learning processes for achieving MLLs. The RIE, Bhubaneswar has developed a source book on 'Teaching of physical geography' for use by the secondary level teachers.

# 11

# EXAMINATION REFORMS

*Designing, developing and standardising scientific processes, tools and techniques for assessment of cognitive, affective and conative aspects of pupils' growth; promoting and conducting research in educational testing and evaluation and measurement and training of key resource personnel; providing advisory services and coordination and clearing-house functions in the area of examination reforms.*

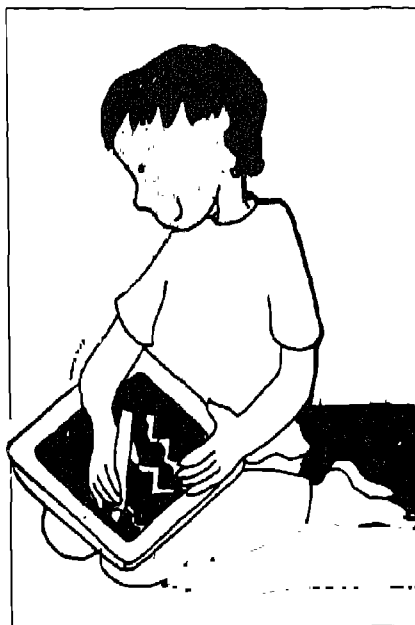
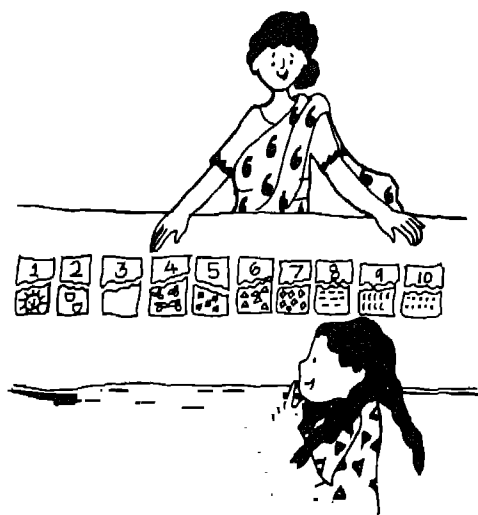
## Examination Reforms

The NCERT is engaged in several activities related to measurement and evaluation in the area of examination reforms. The programmes in this area are specially directed towards designing, developing and standardising scientific processes, tools and techniques for assessment of cognitive, affective and conative aspects of pupils' growth; promoting and conducting research in educational testing and evaluation and measurement and training of key resource personnel; providing advisory services and coordination and clearing-house functions in the area of examination reforms.

A national meeting of the chairpersons and secretaries of selected State Boards of School/Secondary Education was organised to discuss the draft National Framework of Examination Reforms, and Minimum Physical Facilities in Schools. In order to find out the practicability of the scheme of Continuous Comprehensive Evaluation (CCE) in schools, try-out of the scheme was undertaken in two schools in Delhi. Qualitative analysis of pupils' errors in Boards' Examination of Class X (biology, physics and chemistry) and its impact on pupils' achievement was undertaken in collaboration with the Central Board of Secondary Education. A study on 'analysis of question papers of Class X in social studies (history, geography, civics, economics)' of the Boards of Secondary Education of Haryana, CBSE, Jammu and Kashmir and Rajasthan was also conducted. The question papers of previous years were analysed.

The faculty's expertise was provided to the Council of Higher Secondary Education, Manipur in training of key personnel in educational evaluation. Other consultancy programmes include: (i) orientation of English teachers of ICSE, (ii) review meeting of senior secondary curriculum in English at the National Open School, (iii) Orientation of science teachers organised by SCERT, Delhi, (iv) development of sample papers in physics, biology, chemistry by CBSE and (v) recasting of physics syllabus of the National Open School.

### *Reports and Other Materials Brought out during 1995-96*

- Evaluation Practices in Primary Schools of Delhi (mimeographed)
- Qualitative Analysis of Pupils' Errors made in Boards Examination of Class XII Biology and its Impact on Pupils' Achievement (mime- ographed)
- Qualitative Analysis of Pupils' Errors made in Boards' Examination of Class XII Physics and its Impact on Pupils' Achievement (mimeographed)
- Qualitative Analysis of Pupils' Errors made in Boards' Examination of Class XII Chemistry and its Impact on Pupils' Achievement (mimeographed)
- Sample Questions on *India : General Geography* (NCERT Textbook for Class XII) (mimeographed)
- Qualitative Analysis of Question papers in Social Studies of Class X for Four Boards of School Education (mimeographed)

- Role of Induction Programme in Teacher Effectiveness in Improving Quality of School Education (typed)
- Role of Three Ts in Quality in School Education —Texts, Tests and Teachers' Education and Training (typed)
- Concept and Role of Educational Measurement, Evaluation and Tests (typed)
- Evaluation Materials—Guidelines (typed)

# 12

# EDUCATIONAL PSYCHOLOGY COUNSELLING AND GUIDANCE

*Qualitative improvement of education, particularly at the elementary, secondary and senior secondary levels, is one of the major concerns of the NCERT. The outcomes of the programmes have implications not only for the educational development of school students but also for their all-round development including social, emotional and career development.*

*Trainees of the Post-Graduate Diploma Course in Guidance and Counselling (1995-96) visiting CIET*

## Educational Psychology, Counselling and Guidance

Qualitative improvement of education, particularly at the elementary, secondary and senior secondary levels, through the application of the disciplines of educational psychology and of counselling and guidance is one of the major concerns of the NCERT. The outcomes of the programmes in this area have implications not only for the educational development of school students but also for their all-round development including their social, emotional and career development at elementary and secondary stages. Highlights of the programmes conducted in this area during 1995-96 are given below.

## Research and Development

**Counselling Case Management: Development of a Practical Guide**

Based on identification of cases successfully handled by the trainees of the Post-Graduate Diploma Course in Guidance and Counselling in the last five years, steps are being taken to bring out a book on counselling cases depicting utility of some counselling skills and techniques to handle problems of Indian schools children.

**A Study of Adolescents' Perception of Social Norms**

The study aims at investigating the nature of parental norms and expectations about adolescents' behaviour and their perception of parental norms and expectations and nature of discrepancies between the two. A questionnaire to study the parental norms and expectations was prepared.

*A study was undertaken to provide information on employment status and job effectiveness of the trained counsellors.*

**A Critical Study of Educational Psychology Curriculum of Elementary Teacher Education**

The analysis of contents of courses was undertaken. Area-wise tabulation, classification and preliminary analysis of the syllabi was done.

**Analysis of Science Textbooks of Secondary School Stage**

A check-list to analyse the textbooks was developed.

**Research Trends and Indigenisation of Educational Psychology in India : Analysis of Journal Articles and Reports**

Abstracts of studies appearing in the *Indian Psychological Abstracts* were collected and analysed. A draft paper titled, 'Psychology in India: Challenges and Prospects' was prepared.

**Counsellor in the Making: Status and Development**

The study aims to follow up the counsellors trained under the Diploma Course in Guidance and Counselling of the NCERT to assess the effectiveness of the training. The study would provide information on employment status and job effectiveness of the trained counsellors and to suggest changes for improving the programme. Questionnaires were developed to collect data from counsellors, students, teachers, parents and administrators.

Two studies are in progress: (i) Predictive potential of the selection procedure for performance in the counsellor training programmes and on-the-job performance, and (ii) Guidance research in India: An indepth study.

**Role of Acculturation in the Development of Values among Children: Material Views**

A total of 360 parents (120 mothers, 120 fathers, and 120 grandmothers of children below 10 years of age) from three types of residential background (rural/urban/metropolitan) and two economic groups (low/high) participated in the study. They were interviewed on different dimensions of acculturation and value development. The outcomes of the programmes inter alia revealed:

- Children are valued for different groups of respondents for different reasons.
- Parents emphasized on the indigenous value patterns.

**A Study of Vocational Behaviour of Creative Girls**

The study provides a comprehensive data-base about career development of creative adolescent girls useful for educational planners, teachers and counsellors in planning suitable interventions at school stage in Indian context.

**Analysis of Educational Occupational Information: A Study of Three Leading Newspapers**

For the analysis, items of educational occupational information appeared in *The Hindustan Times*, *The Times of India* and *The Indian Express* during the quarter, October-December 1994 were included. In order to draw the sample, 'Construct Week' method was followed. The quantitative (space-wise) and qualitative (content) analysis of items of information was taken up and results were reported in percentages. The report of the project was brought out.

**Schooling in Mirambika: A Case Study**

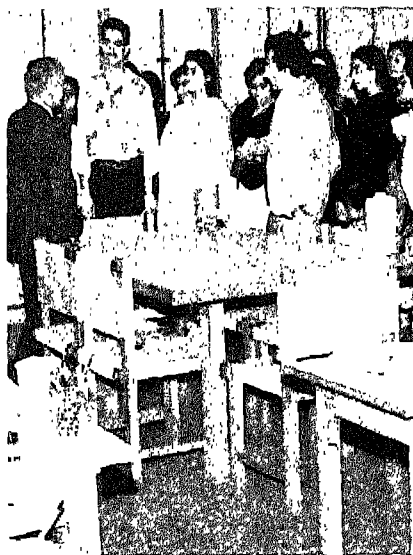
The project on Mirambika — a school based on Sri Aurobindo's philosophy — aims at making a comprehensive study of the school in relation to its transcendental and operative goals. The main objective of the study is to obtain a 'holistic' view of the school in terms of its organisation, culture (norms and values) and the teaching/learning processes. Data were collected by intensive classroom observation of cultural activities, retrieval of information from different sources in the school, students' perceptions of life at school and interviews with teachers and coordinators.

## Training

### *Post-Graduate Diploma Course in Guidance and Counselling*

Twenty-nine trainees from Andhra Pradesh, Delhi, Uttar Pradesh, Gujarat, Haryana, Karnataka, Punjab, Maharashtra, Meghalaya, Mizoram, Orissa, and Tamil Nadu underwent training in the 34th Diploma Course that was concluded on 28 April 1995. The 35th Diploma Course commenced on 4 September 1995. Twenty-seven trainees from Delhi, Haryana, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh are attending the course.

### *Reports and Other Materials Brought out during 1995-96*

- Value Tests (mimeographed)
- *Towards Self and Career Awareness* (printed)
- *Education for Creativity: A Resource book for Teacher Educators* (printed)
- A Study of Vocational Behaviour of Creative Girls (mimeographed)
- Role of Acculturation in the Development of Values among Children: Maternal Views (mimeographed)
- Guidance: Principles and Practices (2 Vols.) (typed)
- Occupational Information in Guidance (typed)

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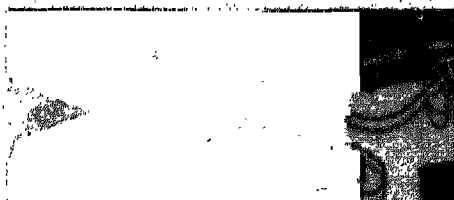
# TEACHER EDUCATION

*The Department of Teacher Education and Extension (DTEE) in the National Institute of Education at New Delhi and the Regional Institutes of Education (RIEs) at Ajmer, Bhopal, Bhubaneswar, Mysore and Shillong are the major constituents of the NCERT engaged in improving the quality of teacher education.*

*A view of the NCERT's Interactive Teacher Training Programme through Tele-Conferencing for teachers of Karnataka under SOPT*

*Participants of the above programme interacting with the Panelists on STD line*

## Teacher Education

Teacher education is a critical input for improving school education. The programmes and activities in this area are generally focussed on development of capabilities in the states to respond effectively to the training needs of the states, including training under the District Primary Education Programme (DPEP) and Special Orientation of Primary Teachers (SOPT); academic support to centrally sponsored schemes of teacher education like the District Institutes of Education and Training (DIETs), Colleges of Teacher Education (CTEs) and Institutes of Advanced Studies in Education (IASEs); development of need-based training designs and training materials for DIETs, Block Resource Centres (BRCs) and Cluster Resource Centres (CRCs), etc.; strengthening of state-level institutions like State Councils of Educational Research and Training (SCERTs); promotion of innovations and practices at school education and teacher education levels and organisation of pre-service professional education of teachers. The Department of Teacher Education and Extension (DTEE) in the National Institute of Education at New Delhi and the Regional Institutes of Education (RIEs), at Ajmer, Bhopal, Bhubaneswar, Mysore and Shillong are the major constituents of the NCERT engaged in improving the quality of teacher education.

Each RIE caters to educational needs (pre-service and in-service education) of the states and UTs under its jurisdiction. The RIE, Ajmer looks after teacher education and related educational requirements of the states of Delhi, Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and Uttar Pradesh, and the UT of Chandigarh. The RIE, Bhopal has under its jurisdiction states of Goa, Gujarat, Madhya Pradesh, Maharashtra and UTs of Dadra and Nagar Haveli and Daman and Diu. The states of Arunachal Pradesh, Assam, Manipur, Mizoram, Meghalaya, Nagaland, Sikkim, Tripura, Bihar, Orissa, West Bengal and the UT of Andaman and Nicobar Islands are covered by the RIE, Bhubaneswar. The states of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu and UTs of Lakshadweep and Pondicherry are covered by the RIE, Mysore. In December 1995, a new Regional Institute of Education was set up at Shillong to cater to the in-service educational needs of north-eastern states of Assam, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Nagaland, Tripura and Sikkim which are at present covered under the RIE, Bhubaneswar. Highlights of the programmes and activities undertaken in the area of teacher education during 1995-96 are given below.

## Pre-Service Teacher Education Programmes

One of the major concerns of the NCERT is the development and operationalisation of innovative pre-service teacher education programmes. The RIEs continued conducting pre-service teacher education courses, viz. four-year integrated teacher education course in science education and one-year M.Ed. course with specialisation in elementary education. After conversion of RCEs into RIEs w.e.f. April 1995, other pre-service teacher education programmes, viz. four-year B.A., B.Ed., one-year B.Ed. in science, commerce, agriculture, English, Hindi, Urdu and two-year M.Sc.Ed. (life sciences, physics, chemistry, mathematics) are being phased out by stopping fresh admissions from the 1995-96 session, to enable the RIEs to concentrate in priority areas of national concerns in education.

### *Four-Year Integrated B.Sc., B.Ed./B.Sc.Ed. Course*

The main emphasis of this course is on quality, i.e. producing good teachers well versed in content, process and pedagogy and co-curricular activities.

### *One-Year M.Ed. (Elementary Education) Course*

As part of the NCERT's efforts towards Universalisation of Elementary Education in general and meeting the needs of various institutions in the states, especially of

## Course-wise Enrolment in RIEs during 1995-96

| S.No. | Course | Ajmer | Bhopal | Bhubaneswar | Mysore |
|---|---|---|---|---|---|
| 1. | **B.SC.B.ED.** | | | | |
| | I Year | 75 | 83 | 78 | 77 |
| | II year | 61 | 52 | 82 | 39 |
| | III Year | 67 | 55 | 70 | 54 |
| | IV Year | 58 | 58 | 72 | 56 |
| 2. | **B.A. B.Ed.** | | | | |
| | II Year | - | 50 | 64 | 23 |
| | III Year | - | 41 | 63 | 39 |
| | IV Year | - | 46 | 67 | 30 |
| 3. | **M.Sc.Ed.** | | | | |
| | Physics II Year | - | - | - | 15 |
| | Chemistry II Year | - | - | - | 17 |
| | Mathematics II Year | - | - | - | 15 |
| | Life Science II Year | - | - | 17 | - |
| 4. | **M.Ed. (Elementary)** | 19 | 14 | 22 | 36 |
| **Total** | | **280** | **399** | **535** | **401** |

## Examination Results of RIEs during 1995

| S.No. | Course | Pass Percentage | | | |
|---|---|---|---|---|---|
| | | Ajmer | Bhopal | Bhubaneswar | Mysore |
| 1. | **B.Sc.B.Ed./B.Sc.Ed.** | | | | 97.9 |
| | I Year | 92.5 | 87.7 | 87.9 | |
| | II Year | 100.0 | 90.0 | 84.5 | |
| | III Year | 100.0 | 100.0 | 97.2 | |
| | IV Year | 100.0 | 95.6 | 94.2 | |
| 2. | **B.A. B.Ed./B.A. Ed.** | | | | 96.7 |
| | I Year | - | 90.4 | 90.7 | |
| | II Year | - | 90.7 | 100.0 | |
| | III Year | - | 100.0 | 100.0 | |
| | IV Tear | - | 100.0 | 100.0 | |
| 3. | **B.Ed.** | | | | 100.0 |
| | Science | 98.7 | 100.0 | - | |
| | Agriculture | 100.0 | - | - | |
| | Commerce | 100.0 | 100.0 | - | |
| | English | 100.0 | - | - | |
| | Hindi | 100.0 | - | - | |
| | Urdu | 100.0 | - | - | |
| 4. | **M.Sc. Ed.** | | | | |
| | Physics | - | - | 81.8 | - |
| | Chemistry | - | - | 94.4 | |
| | Mathematics | - | - | 100.0 | |
| | Life Science | - | - | 100.0 | - |
| 5. | **M.Ed.** | 100.0 | 100.0 | 100.0 | 100.0 |

the DIETs/SCERTs, an M.Ed. degree course, with specialisation in elementary education, was started in 1995-96. This is a highly integrated and innovative one-year course in teacher education that gives adequate emphasis on issues and concerns in primary education and research-based inputs. The pupil-teachers in the course inter alia conducted several research studies in different priority areas of elementary education.

During 1995-96, a total of 1,615 students were on roll in various pre-service courses in the four RIEs.

## In-Service Teacher Education Programmes

**A Study of Human Resource Development Climate in District Institutes of Education and Training**

The HRD climate in DIETs was studied with regard to trust, responsibility, risk-taking behaviour, top-support feedback, supportive HRD climate, openness versus communication, team spirit and collaboration and reward. The findings of the study reveal: (i) Majority of the sampled DIETs tend to have average or below average HRD climate; (ii) Team spirit was found to be inadequate whereas collaboration was found to be satisfactory; (iii) Top-support and feedback dimensions of HRD climate were operative in most of the DIETs; (iv) DIETs having superior/above average HRD climate tend to exhibit significantly greater sense of responsibility and openness versus communication dimensions than that of those which have low/below-average HRD climate; (v) Vacant academic posts in various branches of DIETs, uncertainty about the future prospects of deputed staff, lack of infrastructural facilities, lack of departmental promotions, awareness about the roles and functions of DIETs to the faculty, delayed release of grants, etc. are some of the factors which tend to affect the HRD climate.

*Training in various teaching skills was imparted through lecture-cum-demonstration method followed by immediate feedback after the delivery of the lesson.*

**A Pilot Study on Appraisal of Training Methodology Used in the Pre-Service Teacher Training Programmes**

The study was conducted with the help of tools like Observation Schedule, Self-appraisal Schedule, Perception Scale for Teacher Educators, and Perception Schedule for Student Teachers. The study revealed that classroom transaction of theory papers was generally done through lecture-cum-discussion/demonstration/question-answer methods. Training in various teaching skills was imparted through lecture-cum-demonstration method followed by immediate feedback after the delivery of the lesson. By and large, teacher educators did not use the methodology they recommend to their student teachers.

**Assessment of the Functioning of Colleges of Teacher Education**

A questionnaire was sent to the principals of the CTEs for furnishing data on various aspects such as (i) pre-service and in-service teacher education functions, (ii) research and extension, and (iii) community involvement, etc. Thereafter, matters related to the assessment of the functions of CTEs, academic and administrative problems faced by them were discussed in a meeting of the principals of CTEs held at the RIE, Mysore.

**Performance Appraisal of Teachers**

A Performance Appraisal Tool for teachers was developed to assess their performance in classroom teaching, participation in evaluation, innovations/contributions in classroom teaching, improvement of professional competencies, action research, participation in corporate life, and curriculum evaluation. The tool was tried out on a sample of teachers of Delhi schools followed by structured interviews.

**Code of Professional Ethics for Teachers**

The draft of the Code of Professional Ethics, developed earlier in 1988, was reviewed in a national workshop

with a view to evolving a fresh Code of Professional Ethics for teachers in the light of changing role of teachers. Five major areas of professional activities which encompass the work of a teacher were selected: (i) teacher in relation to pupils, (ii) teacher in relation to parents/guardians, (iii) teacher in relation to society and the nature, (iv) teacher in relation to profession, colleagues and professional organisation, and (v) teacher in relation to management/administration. For each of these areas, certain ethical principles are chosen and selected to serve as guidelines for ethical practice of a teacher.

**M.Ed.(Elementary) Curriculum**

A conceptual framework of the curriculum for M.Ed. (elementary) and a draft detailed syllabi were prepared. The curriculum and syllabi will be finalised during 1996-97.

**Work Plan of IASEs**

A work plan was developed in a national workshop of principals and heads of IASEs which inter alia includes training inputs required for qualitative improvement of teacher education. Each participating institution prepared a detailed plan for organising in-service teacher education programmes and for undertaking research in teacher education and elementary education.

**Action Plan for the RIE, Shillong**

In order to meet the educational needs of the north-eastern states, the NCERT established a new RIE at Shillong in December 1995. A two-day meeting of the Directors of SCERTs/SIEs of the north-eastern states was organised at the RIE, Shillong to discuss their educational needs and development of action plans for providing academic support by the new RIE.

**Blue-print of Teacher Centres**

At the instance of the MHRD, the NCERT prepared a draft blue-print of the proposed scheme of teacher centres with the help of experts.

**Training of Principals of DIETs**

An eleven-day training programe for principals of DIETs was organised to help them perceive their role and to enhance their capabilities. The focus of training remained on development of instructional material, evaluation of training material, institutional management and administration, MLLs curriculum at elementary stage, use of library, learner-centred approach, Operation Blackboard, assessment of teacher training needs,

**Special Orientation for Primary Teachers**

Under the centrally sponsored scheme of Special Orientation for Primary Teachers (SOPT), the NCERT has been entrusted the responsibility for planning, monitoring and evaluation, besides providing academic inputs to the state nodal agencies. It envisaged orientation of 4.5 lakh teachers every year during the last four years of the Eighth Five Year Plan. The focus of the programme is on developing competencies in the use of OB material, child-centred approach, and MLLs strategy.

Self-instructional training packages, consisting of two volumes of print material (English and Hindi), supplemented by an ETV package, consisting of 40 video programmes, were developed. Key Persons' Training Manual and Users' Guide for effective use of ETV programmes were also developed. The training package has been adopted/adapted by the states in regional languages for use in cascade mode of training programmes.

The NCERT provided five-day training to the key persons of the state nodal agencies. The key persons provided seven-day training to primary school teachers. A comprehensive questionnaire was developed for carrying out monitoring and evaluation of SOPT programme. Four regional workshops (one each at RIEs Ajmer, Bhopal, Bhubaneswar and Mysore ) were organised to orient the state officials for effective monitoring of implementation of SOPT. During 1995-96, 96,632 primary school teachers, 2,106 resource persons and 304 key persons were trained.

In addition to the training programmes for key resource persons, the RIEs also conducted model training camps for primary school teachers under SOPT and monitored and guided the training camps organised in different centres in their respective regions.

**Training of Primary Teachers Using Interactive Video Technology (TELE-SOPT)**

The cascade mode of training suffers from transmission loss leading to quality dilution. In order to minimise the transmission loss, the NCERT took up a pilot project, in collaboration with ISRO and IGNOU, to train about 1,000 primary school teachers and 60 faculty members of DIETs of Karnataka in the first instance. The TELE-SOPT programme was organised from 7 to 13 January 1996. The training was organised at 20 places in Karnataka where receiving facilities were already available. The participants interacted with TV panelists by making use of telephones and FAX machines.

educational technology, multigrade teaching, laboratory area approach, action research, networking of institutions, desegregated planning at the district level, rights of the child, and education of children with special needs, etc.

### Training for DIETs Faculty

A ten-day training programme for DIETs faculty was organised to develop their capacity to develop instructional materials, evaluation of training materials, institutional management and administration, MILLs curriculum at elementary stage, use of library, learner-centred approach, Operation Blackboard, educational technology, multigrade teaching, laboratory area approach, networking of institutions, AIDS education, education of children with special needs, and organisation of seminars, etc., using training modalities like lecture-cum-discussion, assignment, and field experiences.

### Regional Inputs in Teacher Education

As regional inputs in teacher education, the RIEs conducted several programmes for in-service teachers and resource persons. The RIE, Ajmer organised in-service training programmes for (i) key resource persons in teaching of social science at upper primary level; (ii) teaching of mathematics through activities at upper primary level; (iii) teaching of English at senior secondary level; (iv) language proficiency in non-Urdu-speaking areas for Urdu teachers of primary and upper primary schools; and (v) value education and in-action research for DIET personnel. It also organised a conference for principals and head masters of Cooperating Schools and several extension lectures of eminent educators and scientists.

The RIE, Bhopal trained teacher educators in key concepts and methodologies of primary education. Teachers of Demonstration Multipurpose Schools (DMS) were oriented in new thrust areas in school education and their role. An in-service training programme was organised for high school teachers of five ordnance factories of western region.

The RIE, Bhubaneswar oriented (i) heads/teachers of Cooperating Schools in internship in teaching, and (ii) science teachers of Arunachal Pradesh and Tripura in the use of NCERT science kits for teaching science at upper primary level. In-service training programmes were also organised for school teachers in physical education and technology. Five in-service teachers' training programmes were conducted for Railway Board schools teachers in physical science, biological science, mathematics, English and social science. Also, it conducted a seminar on Innovative Practices in Primary Education and organised a National Conference of Indian Association of Teachers.

The RIE, Mysore developed and tried out a design of skill-oriented in-service training programme for DIETs faculty members on implementation of MLL strategy for teaching-learning in multigrade setting and focus on gender perspective.

### National Conference of Directors of SCERTs/SIEs

A National Conference of Directors of SCERTs/SIEs was organised to assess the difficulties faced by the SCERTs/SIEs in implementation of the centrally sponsored schemes of education including teacher education. Matters such as difficulties faced in getting suitable resource persons due to inadequate honorarium under SOPT, delay in the relase of grants, and non-availability of ETV packages were highlighted.

The participants were exposed to some of the programmes of common interest of SCERTs and different departments of NIE such as Non-Formal Education, Population Education, Computer Literacy and Studies

in Schools (CLASS) Project, Out-of-School Activities in Science, Education in Human Rights, Continuous and Comprehensive Evaluation (CCE), and Promotion of Gender Sensitivity among Teachers. It was suggested that a suitable mechanism should be designed for closer linkages between Regional Institute of Education (RIEs) of NCERT and SCERTs/SIEs to improve quality of teacher education.

**Innovative Experiments and Practices in Teacher Education**

The programme aims at promoting experimentation, research and innovative practices among teacher educators. The papers received from teacher educators were got evaluated at the national level by a panel of experts. Upon the quality of papers, a maximum of 30 cash prizes (10 at the Secondary teacher education level and 20 at the Pre-Primary and Elementary teacher education level) are awarded.

During the year 1994-95, fifteen innovative papers (six of Secondary teacher educators and nine of Elementary teacher educators) were selected for awards. A National Seminar of the awardee teacher educators was held in July 1995 where they presented their papers and received awards. The innovative papers of the awardees were related to themes like inculcation of values through play-way methods, behaviour motivation, computer-assisted instructions, teaching through newspapers, methodology of teaching Mathematics, Language and History, and educational statistics, etc. During 1995-96, seventy-eight papers from teacher educators and 235 papers from school teachers were received for the All India Competition.

## *Reports and Other Materials Brought out during 1995-96*

**DTEE**

- Innovative Experiments and Practices in Teacher Education (Awarded papers 1994-96) — A Report (xeroxed)
- Innovative Experiments and Practices in Teacher Education: Summaries of Papers Selected for Award at the All India Competition on Innovations in Teacher Education (mimeographed).
- Innovative Experiments and Practices in Teacher Education and School Education — Information Bulletin (printed).
- Teacher Policy, Training Needs and Perceived Status of Primary School Teachers of Madhya Pradesh State (xeroxed)
- Training Manual for SOPT (printed)
- SOPT: Self Instructional Package for Special Orientation Programme for Primary School Teachers (printed)
- *Prathmik Vidyalaya Ke Vishesh Abhivinyas Karyakram Ke Liye Prashikshan Sandarshika* (printed).
- Use of Education Television Programmes for Training of Primary Teachers (SOPT Video Package) — A Guide for Teacher Educators and Resource Persons (printed)
- Training of Primary Teachers and Other Functionaries in DPEP States (appraisal study) (xeroxed)
- In-service Training of Educational Personnel in India: Some Practices (Part I) (xeroxed)
- A Study of the DIETs with Special Reference to Human Resource Development Climate (typed)
- An Appraisal of Training Methodology Used in Pre-service Teacher Education Programme (typed)

**RIE, Ajmer**

- Assessment of Primary Teachers' Training Needs in EVS, Hindi and Mathematics (xeroxed)
- Practice Sets in Book-Keeping at +2 Level for the State of Rajasthan (typed)
- *Bahulakshiya Shikshan Karya Yojana Evam Kriyanviti* (typed)
- *Kriyatmak Anusandhan Main Dakshtaon Ka Vikas* (typed)
- *Prathmik Shikshakon Ke Liye Moolaya Parak Shiksha— Sandarshika* (typed)

- Journal of Work Experiecne and Vocational Education in Agriculture Vol.II (printed)

**RIE, Bhopal**

- Guidelines on the Role of VECs and VPs in Promoting UPE in the State of Maharashtra (xeroxed)
- Guidebook for DIETs and Supervisory Personnel on the Monitoring of DPEP Activities at the District Level (xeroxed)
- Workshop for Development of Training package on Teaching Science through Environmental Education Approach at Upper Primary Stage and its Try-out (xeroxed)
- Integrated Instructional-cum-Remedial Material in English and Environmental Studies for Class III (xeroxed)
- Monitoring the Implementation of SOPT Programme in the State of Maharashtra (xeroxed)
- Development of a Guide Book for the DIET Personnel on Optimising Capability Building of Educational Personnel Working under DPEP (Hindi) (xeroxed)
- Preparation of Exemplar Research Design Tools and Statistical Procedures for Conducting Cooperative Action Research

**RIE, Bhubaneswar**

- Awareness Modules for Primary Teachers
- Modules on Administration and Management
- Modules on Specific Content Areas of Primary School Curriculum
- Modules on Development of Assessment Tools and Continuous Comprehensive Evaluation.
- Source Book on Teaching of Physical Geography for Secondary Level Teachers

**RIE, Mysore**

- Special Orientation Programme for Primary School Teachers (SOPT) Rural and Urban
- Evaluation of In-service Training Materials Developed under DPEP Tamil Nadu — A Study
- Collection and Evaluation of In-service Teacher Training Materials
- Evaluation of In-service Training Materials Developed under DPEP — A Study
- Evaluation of Competency-based Instructional Materials Developed by Karnataka, Tamil nadu and Kerala in Environmental Studies
- Evaluation of Competency-based Instructional Materials Developed by Karnataka and Tamil Nadu in Mathematics
- Evaluation of Competency - based Instructional Materials Developed by Karnataka in Kannada
- Evaluation of Competency-based Instructional Materials Developed by Tamil Nadu in Tamil
- Evaluation of Competency-based Instructional Materials Developed by Kerala in Malayalam
- Evaluation of Competency-based Instructional Materials Developed by Tamil Nadu - Teachers' Handbook
- In-service Training Practices in vogue in the Southern States — A Documentation.

## Demonstration Multipurpose Schools

Each of the Regional Institutes of Education (RIEs) at Ajmer, Bhopal, Bhubaneswar and Mysore has a Demonstration Multipurpose (DM) School attached to it. These demonstration schools are an integral part of the RIEs and act as laboratories for trying out innovative practices in school education and teacher education. The teacher trainees enrolled in the various pre-service teacher education courses offered by the RIEs also undergo practical training in these schools.

The DM schools with Classes I to XII impart education through English medium. These schools are affiliated to the Central Board of Secondary Education (CBSE), New Delhi. These schools also offer guidance and counselling facilities and have the unique distinction of having vocational courses at the +2 level, viz. Structure and Fabrication, Basic Electronics Technology, Office Management and Secretarial Practice.

The DM Schools have well-qualified and experienced staff, and are equipped with excellent laboratories and good libraries. In addition to the normal teaching work,

**Class-wise Enrolment in DM Schools during 1995-96**

| Class | Ajmer | Bhopal | Bhubaneswar | Mysore |
|---|---|---|---|---|
| I | 34 | 61 | 70 | 65 |
| II | 37 | 80 | 70 | 69 |
| III | 39 | 79 | 68 | 65 |
| IV | 46 | 76 | 79 | 69 |
| V | 47 | 87 | 125 | 82 |
| VI | 82 | 95 | 133 | 69 |
| VII | 58 | 80 | 131 | 70 |
| VIII | 79 | 76 | 133 | 75 |
| IX | 73 | 81 | 123 | 69 |
| X | 88 | 67 | 124 | 35 |
| XI | 96 | 84 | 81 | 23 |
| XII | 97 | 55 | 90 | 15 |
| **Total** | **776** | **921** | **1227** | **706** |

**Examination Results in DM Schools in 1995**

| Class | Pass Percentage | | | |
|---|---|---|---|---|
| | Ajmer | Bhopal | Bhubaneswar | Mysore |
| X | 92.3 | 92.8 | 95.2 | 100.0 |
| XII (Science) | 91.2 | 94.1 | 73.2 | 97.0 |
| XII (Arts) | 100.0 | 70.0 | 79.3 | - |
| XII (Commerce) | 96.3 | 93.0 | 83.3 | - |
| XII (Vocational) | 100.0 | 88.2 | 72.4 | - |
| XII (Humanities) | - | - | - | 100.0 |
| XII (Office Management and Secretarial Practice) | - | - | - | 92.0 |

the faculty of DM schools is also involved in experimentation and innovations for developing new techniques/programmes in classroom teaching to bring about qualitative improvement in the pupils' achievement. The schools have been implementing the programme of Competency Based Teaching (CBT) with an action research approach to ensure attainment of Minimum Levels of Learning (MLLs) by students. The programme commenced in June-July 1995. To take stock of the progress, a four-day conference of primary school teachers of the DM Schools was organised at RIE, Mysore, during December 1995. The report of the proceedings of conference incorporating the action research-based papers presented by the primary school teachers was brought out.

In order to provide informational inputs/feeback for improvement of NCERT textbooks, the DM Schools have undertaken, in the first instance, empirical evaluation (try-out) of four NCERT textbooks — one each in history, geography, economics and civics.

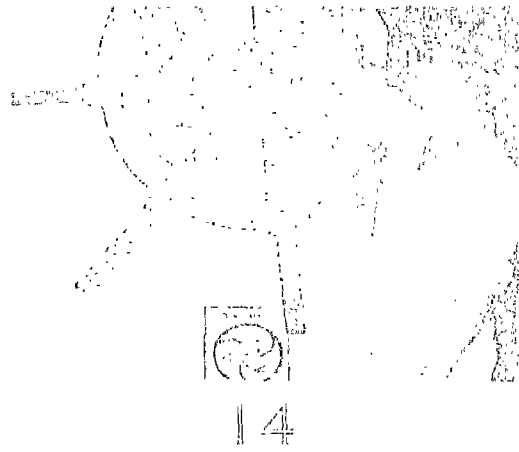
## Field Services

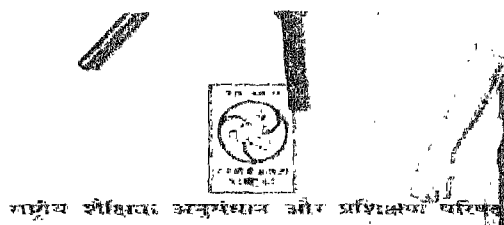
The NCERT had set up Field Offices all over the country for liaison work with the State Departments dealing with school education and teacher education. These Field Offices provide information to the states about the programmes and activities of the constituent units of the NCERT. They also collect and communicate to the constituent units of the NCERT information regarding specific needs of the

states and the UTs under their jurisdiction requiring NCERT's inputs. The Field Offices also provide support to different constituents of the NCERT for organising their programmes and activities.

During 1995-96, the Field Advisers in the states assisted various constituents of the NCERT in the conduct of some of their programmes in the states and the UTs. They also carried out various liaison/asistance functions pertaining to implementation of programmes and activities undertaken by the different constituents of the NCERT, the MHRD, concerned State Education Departments, etc. which inter alia included the following:

- Helping the Regional Institutes of Education (RIEs) in the matters related to organisation of meetings of the State Coordination Committees (SCCs) to assess the educational needs of the states/UTs requiring NCERT's inputs.
- Liaison work among the State Education Departments/organisations, NCERT and the MHRD and dissemination of educational information.
- Assistance to the State Education Departments in the context of :
  - Selection of teachers for national awards
  - Training of teachers
  - Study of vocational education programmes
  - Development of curricula/instructional material and their review
  - State-level toy-making competitions
  - Policy formulation
- Assistance to the MHRD in the context of:
  - Monitoring of implementation of the centrally sponsored schemes in the states and UTs, such as SOPT
  - Pre-sanction appraisal of NFE proposals submitted by voluntary agencies
  - Assessment of functioning of NFE voluntary agencies running NFE Centres through Joint Evaluation Teams (JETs)
  - Improvement of hostel facilities for girls
- Assistance to the Constituents/Departments of the NCERT in the context of:
  - Sixth All India Educational Survey
  - National Talent Search Examination
  - On-the-spot study of implementation of vocational education programmes.
  - Wide publicity to:
  - Diploma Course in Guidance and Counselling
  - International Poster Contest in Population Education
  - Competition on Innovative Experiments and Practices in Teacher Education/School Education
  - Organisation of state-level science exhibitions
  - Collection of information/documents such as, (a) price of textbooks and exercise books/note books in the states/UTs, and (b) procuring educational psychology curriculum on elementary teachers in india.

As a result of the decison taken by the MHRD on the recommendations of the 'Abbreviated Review' of the NCERT, the NCERT's Field Offices are to be phased out. The roles and functions that were assigned to the Field Offices are to be assigned to the Regional Institutes of Education (RIEs). The NCERT's Field Offices located in Rajasthan, Orissa, Madhya Pradesh and Shillong have already been closed down. The work of these Field Offices has been taken over by the concerned RIEs in the states. The NCERT's Field Office, Shimla, Himachal Pradesh has been merged with the NCERT's Field Office at Chandigarh.

# VOCATIONAL EDUCATION

*A National Centre for Vocational Education Information (NCVEI) to promote national, regional and international network of Vocational Education System and Services has been established at PSSCIVE, Bhopal.*

# Fishing Technology

**For the Vocational Course for Higher Secondary Students**

## Vocational Education

Improvement of work education at all stages of school education has been a major concern of the NCERT. Significant activities in this area have been the development and implementation of the programmes pertaining to vocationalisation of higher secondary education and pre-vocational education of the secondary stage.

Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal is the national apex research and development institution in the field of vocational education. It is also one of the Centres of International Project on Technical and Vocational Education (UNEVOC) which is administered by UNESCO. One of the important functions of the institute is to oversee the implementation of vocational education programmes launched by the MHRD, Government of India. Other functions include advising and assisting MHRD, Government of India, state governments, and UT administrations in implementation of vocational education, pre-vocational education and work experience programmes; promoting, supervising and guiding establishment of comprehensive management system for vocational education at various levels; undertaking, guiding and coordinating curriculum development, instructional material development, training, extension, research, monitoring and evaluation, and offering consultancy to state governments in the area of vocational education, pre-vocational education and work experience and looking after international aspect of vocational education.

In addition to the above activities, the institute also interacts from time to time with various ministeries/ departments/agencies concerned with vocational education in the country.

### Development Programmes

Two vocational courses have been newly designed and developed. Six vocational courses have been revised at the request of the Joint Council of Vocational Education, MHRD for moving towards standardisation.

Thirty-seven textbooks and practical manuals for eight courses have been developed and several manuscripts are at completion stage. A curriculum on generic vocational courses for +2 academic stream students has been developed in order to develop skills which cut across various vocations.

Two documents — one for the establishment of production-cum-training centres in schools and other an Orientation Guide on different aspects of vocational education programme for the use of key functionaries of states — have been developed.

A modest beginning was made towards production of multi-media packages for the most pupular vocational courses by taking up the production of four popularisation videos through outside producers.

### Studies

A study on 'Assessment of skilled manpower needs in health sector' was completed and its report is being finalised. Inter-state field seminars were organised at Bikaner and Chandigarh to acquaint state officials with the implementation of the vocational education programme. Two national meetings, one on business and commerce education and other on home science education to delve on the prospects and status and the vocational education programmes in these areas were organised. Awards for best vocational teachers, students, schools and collaborating institutions were instituted to promote vocational education.

### Orientation and Training

Twelve orientation programmes on vocationalisation of education for 483 key functionaries of the states of Assam, Rajasthan, Madhya Pradesh, Karnataka, Delhi,

Haryana, Tamil Nadu, Maharashtra, Bihar, Gujarat and north-eastern states were organised. Two orientation programmes on pre-vocational education for 63 key functionaries of Delhi, Chandigarh, Karnataka, Andhra Pradesh and Madhya Pradesh were conducted. A two-week training programme for key functionaries from 10 implementing states on vocational education was conducted for vocational staff development. This activity lays special emphasis on the development of role perception of the key functionaries about vocational education.

Seven teachers' training programmes of three-four weeks' duration in the areas of commercial garment designing and making, maintenance and repair of radio and TV, dairying, banking, food preservation and processing, automobile engineering and entrepreneurship development were organised.

### International Programmes

A sub-regional workshop to establish UNEVOC Clearing House and Electronic Network in the Asia-Pacific Region was organised by the Adelaide Institute, TAFE in collaboration with the PSSCIVE at Bhopal. Participants from Bangladesh, Malayasia and the Philippines and experts from Adelaide Institute, TAFE (South-Australia) and PSSCIVE, Bhopal participated in the programme.

### Extension

A National Centre for Vocational Education Information (NCVEI) to promote a national, regional and international network of Vocational Education System and Services has been established at PSSCIVE, Bhopal. The institute has also initiated a series of extension lectures of eminent educationists and academicians to share experiences and new concepts in technical and vocational education.

### Consultancy Services

In the context of implementation of the National Policy on Education (NPE), 1986 and the centrally sponsored scheme of vocationalisation of education, the faculty of the PSSCIVE actively participated as experts in various national and international meetings and seminars, study visits and provided consultancy services to support the scheme of vocationalisation of education. Assistance was also extended to the MHRD, CBSE, AICTE, National Open Schools, Navodaya Vidyalaya Samiti, UGC, IGNOU and voluntary organisations in the area of pre-vocational education and work experience. Consultancy services are sprovided to the states/UTs in order to support the scheme of vocationalisation of education.

### Regional Level Inputs to Vocational Education

The RIE, Ajmer developed Practice Sets in Financial Accounting based on the syllabus of the Board of Secondary Education, Ajmer.

The RIE, Bhopal undertook the task of developing tools to assess industrial manpower needs relevant to vocational streams at the +2 stage with special reference to petro-chemical industrial sectors at Baroda and Bhopal to facilitate recast of vocational education programme course. Survey tools for conducting baseline studies on status and training needs in vocational teacher education were developed and administered on vocational teachers in the area of 'agriculture' of Maharashtra and Madhya Pradesh.

### *Reports and Other Materials Brought out during 1995-96*

- Quarterly bulletin of *Vocational Education*, I, II, III, Vol. 2 (printed)
- A poster on Job Opportunities in the Area of Business and Commerce (Hindi-English) (printed)
- Guidelines on Students' Evaluation (printed)
- A brochure on PSS Central Institute of Vocational Education (printed)
- Vocational Education-Organisational and Management Alternatives (printed)
- Orientation Guide on Vocational Education programme (printed)
- *Vyavasayik Shiksha — Vivaranika* (Hindi) (printed)
- Skilled Manpower in Agriculture Prospects and Modalities for Development — A Compendium (printed)
- A poster on Job Opportunities in the Area of Engineering and Technology (Hindi-English) (printed)

- Guidelines for Establishment of Production-cum-Training Centre (printed)
- A leaflet on National Centre for Vocational Education Information (printed)
- Inter-state Field Seminar — A Report (xeroxed)
- Competencies based Curriculum on Generic Vocational Course (xeroxed)
- Curriculum on Entrepreneurship Development—Production and Service-type Activities (xeroxed)
- Competencies based Curriculum on Rural Energy Management (xeroxed)
- Competencies based Curriculum on Basic Finance Management (xeroxed)
- Competencies based Curriculum on Catering and Restaurant Management (revised) (xeroxed)
- Competencies based Curriculum on Import and Export Practices and Documentation (revised) (xeroxed)
- Competencies based Curriculum on Library and Information Science (revised) (xeroxed)
- Competencies based Curriculum on Repair and Maintenance of Farm Machinery (revised) (xeroxed)
- Competencies based Curriculum on Commercial Art (revised) (xeroxed)
- Competencies based Curriculum on Inland Fisheries (revised) (xeroxed)
- Elementary Construction Technology — Theory for Class XI (xeroxed)
- Elementary Construction Technology—Practical for Class XII (xeroxed)
- Construction and Maintenance Technology — Theory and Practical for Class XII (xeroxed)
- Construction Management and Accounts — Theory and Practical for Class XII (xeroxed)
- Energy Application (xeroxed)
- Building Material — Theory for Class XI (xeroxed)
- Modern Building yard Practice — Theory for Class XI (xeroxed)
- Estimating and Costing — Practical for Class XII (xeroxed)
- Building Material — Practical for Class XI (xeroxed)
- Energy Application II — Theory for Class XII (xeroxed)
- Material Application — Theory for Class XI (xeroxed)
- Elements of Accounting — Theory for Class XI (xeroxed)
- Typewriting (English) I — Theory for Class XI (xeroxed)
- Office Procedure and Practice II — Theory for Class XII (xeroxed)
- Elements of Accounts — Practical Class XI (xeroxed)
- Typewriting (English) I — Practical for Class XI (xeroxed)
- Office Procedure and Practice II — Theory for Class XII (xeroxed)
- Typewriting (English) II — Theory for Class XII (xeroxed)
- Introduction to Computer Applications — Theory and Practical for Class XII (xeroxed)
- Introduction to Banking and Book Keeping — Theory for Class XI (xeroxed)
- Introduction to Banking and Book Keeping — Practical for Class XI (xeroxed)
- Deposit Accounts — Theory for Class XII (xeroxed)
- Ancilliary Services — Theory for Class XII (xeroxed)
- Introduction to Computer Applications — Theory and Practical for Class XII (xeroxed)
- Dairy Animal Management — Theory for Class XI (xeroxed)

- Dairy Animal Reproduction and Lactation — Theory for Class XI (xeroxed)
- Dairy Engineering — Theory for Class XII (xeroxed)
- Milk Processing —Theory for Class XI (xeroxed)
- Dairy Products I — Theory for Class XII (xeroxed)
- Dairy Products I — Practical for Class XII (xeroxed)
- Dairy Products II — Theory for Class XII (xeroxed)
- Dairy Management — Theory for Class XII (xeroxed)
- Basic Design to Textile Designing II — Theory for Class XII (xeroxed)
- Elementary Textile: Paper — Practical Manual for Class XII (xeroxed)
- Commercial Clothing — Practical Manual for Class XII (xeroxed)
- Office Procedure and Practice — Textbook for Class XII (xeroxed)
- Deposit Accounts — Theory for Class XI (xeroxed)
- Environmental Studies and Rural Development Component of the General Foundation Course Textbook (xeroxed)
- Mushroom Cultivation (xeroxed)

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# EDUCATIONAL TECHNOLOGY

*The CIET is mainly concerned with development of video and audio programmes, 16mm films and low-cost materials, training of personnel in educational technology, media planning, script writing, programme production and technical operations, conducting evaluation research, documentation and dissemination of information and materials and consultancy in application and development of educational technology.*

*The Director General of All India Radio and the Director, NCERT exchanging a Memorandum of Understanding*

*A native of Akbarpur observing the total solar eclipse through special spects*

*The CIET camera team getting ready to snap the phenomenon of total solar eclipse at Akbarpur, Alwar (Rajasthan) on 24 October 1995.*

## Central Institute of Educational Technology

A major area of work of the NCERT is to promote educational technology, particularly the mass media, for improvement and spread of education in the country and for development of an alternative system of education. As a premier institute in educational technology, the Central Institute of Educational Technology (CIET) of the NCERT is mainly concerned with development of video and audio programmes, 16mm films and low-cost materials, training of personnel in educational technology, media planning, script writing, programme production and technical operations, conducting evaluation research, documentation and dissemination of information and materials and consultancy in application and development of educational technology. The Institute has also the responsibility of feeding the daily morning educational television (ETV) service through INSAT at the primary level in Hindi and coordinating the activities of the six State Institutes of Educational Technology (SIETs) in setting up their facilities and programme production activities in their respective regional languages. The ETV programmes, produced by the CIET and the SIETs, are received in eleven states and UTs of Chandigarh and Andaman and Nicobar Islands, covering five regional languages.

The morning ETV service in Hindi at the primary level is received in ten states including UTs of Chandigarh and Andaman and Nicobar Islands. Already there is a daily television educational service for primary to secondary level in the Hindi belt. The audio programmes produced by the CIET are being used by ten selected stations of the Akashvani in their educational broadcasts. A Memorandum of Understanding (MOU) to this effect was signed between the NCERT and the Akashvani. The CIET also develops programmes which support the training and extension activities of the other constitutents of NCERT.

During the year 1995-96 the major thrust of activities of the CIET remained on preparation of theme-based ETV and audio programmes to support MLLs requirement at the primary stage, particularly curriuclum-oriented educational software based on MLL competencies.

Under its training activities, the CIET organised courses on technical operations and maintenance of hardware and production of video programmes and writing of scripts. Several workshops were organised to plan audio programme packages on themes selected from ancient and medieval history of India besides a series of programmes on teaching of Hindi and inculcation of positive values in school children.

A novel activity during the year was using 'tele-conferencing mode' of distance education for in-service training of about a thousand primary school teachers of Karnataka, in collaboration with ISRO and IGNOU, utilising their satellite uplink and studio facilities.

## Research and Evaluation

The CIET feeds a daily transmission of the ETV service in Hindi titled 'Tarang' for children and teachers at the primary stage, particularly for the rural areas, from 10.15 a.m. to 11.00 a.m. The SIETs at Lucknow and Patna contribute to this service. In order to bring about continuous improvement in the service, the following activities were conducted. The daily transmission was monitored to observe quality of programmes, quality of capsuling, continuity and linkages among the programmes in a capsule, and extent of repetition of programmes, etc. At the end of each month, a monthly report was prepared for in-house circulation and discussion. The feedback received from the viewers through letters was analysed. Brief reports, based on content analyses of several thousand letters from viewers, were prepared for in-house discussion and use. Children wrote letters not only to send their feedback on programmes but also as a means to express themselves as well. In a number of letters they sent paintings, drawings, poems, stories, riddles, jokes, etc. composed by them. They also asked questions mainly to understand the environment around them. A special programme titled 'Patron ke Uttar' was designed in response to viewers' letters and telecast every month.

**Using Interactive Teleconferencing Technique**

A special innovative project to provide in-service orientation to primary school teachers of Karnataka through interactive distance mode using teleconferencing technique, i.e. one-way video and two-way audio return channel through telephone or fax was designed and operationalised. The programme was conducted from 6 to 13 January 1996 in collaboration with ISRO and IGNOU using their satellite uplink facilities and TV studio. Relevant curricular concepts were identified and a series of 36 ETV programmes were produced in Kannada language for use as inserts in the teleconferencing sessions. Using this innovative technique, about 1000 primary school teachers and 60 DIETs faculty members from Karnataka were trained by experts lecturing from the studio on different aspects of pedagogy, knowledge of content and live demonstration of practical activities designed to develop MLL competencies and other teaching-learning skills in trainees. The project proved to be a thrilling photo-finish success and paved the way for further refinement and adoption of the interactive technique of in-service teacher training for a nation-wide application in different educational situations.

**Educational Audio/Radio Programmes**

| *Series Titles* | *No. of Audio Programmes* |
|---|---|
| Bhasha Anand Series (Teaching Hindi as the first language for Class IV) | 27 |
| Bachpan Series (Programmes on value education for middle class school children | 6 |
| Environmental Education | 3 |
| Programmes produced for DESSH, NCERT under PSLE scheme | 20 |
| Language Teaching Project *Arun Bharati* for DESSH, NCERT | 18 |
| Programme on Aesthetics and Critical Appreciation for DESSH, NCERT | 1 |
| Programme recorded on *Bal Bharati* textbook | 8 |

## Development of Educational Materials

Activities of developing educational software comprising educational television programmes, audio programmes, 16 mm films and low-cost aids for its own purpose and to support the media requirements of the Departments of the NIE and other educational institutes in the country continued.

## Educational Television Programmes

During the year 1995-96, 93 new ETV programmes for children and teachers at the primary stage were produced. This is in additiodn to 52 continuity and link programmes to provide linkages and transitions among different programmes in the capsules for daily transmission. The emphasis of ETV programmes continued on production of theme-based programmes in a series mode to support learning of minimum levels of competencies, particularly in environmental studies and mathematics.

## ETV Production by Outside Agencies

With a view to support the training needs of NIE Departments, the Committee on the Educational Programmes, Planning and Costing has approved six proposals for production of ETV programmes by outside producers on a turn-key basis. During the year, four ETV programmes in this category were produced and other two are at different stages of production. Of these, three programmes were on National Integration, two on the Planet Earth and one on the poet Shiv Mangal Singh Suman under the National Poets series.

The CIET and Six SIETs have received latest Betacom equipment to replace their obsolete 'U-matic' video equipment. The process of installation and operation trial is in progress.

## ETV Scripts

Based on Experts' Working Group Meetings, a series of 12 ETV scripts was finalised. Programmes on these scripts are at various stages of production. Scripts written by outside professional scriptwriters were also taken up for production of ETV programmes.

**Educational Films**

English and Hindi versions of films namely Ranges of Nilgiris and Annamalai Parts I and II were completed. Censor certificates for exhibition and telecast of these films were also obtained. The work on films titled 'Vibrant Ranges' and 'Solar Eclipse' has been completed and laboratory work is in progress at Madras. The film on 'Tribes of Garhwal' is also nearing completion.

**Dissemination of Materials Audio**

In all 45 educational audio/radio programmes addressed to children in 3-7 year age-group were broadcast through 10 stations of Akashvani, namely, Allahabad, Bhopal, Delhi, Indore, Jaipur, Jodhpur, Lucknow, Patna, Rohtak and Shimla as a part of their educational broadcasts. There is also weekly broadcast of the CIET programmes for 10 minutes through ten Hindi Radio Stations of Akashvani under a Memorandum of Understanding (MoU) signed between the NCERT and the Akashvani. Among others, the primary schools in different states that have been provided two-in-one tape recorders for use in the classrooms under the ET scheme of the Government of India will be specially benefitted by these programmes.

**Video**

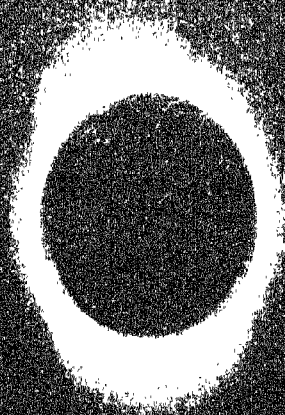
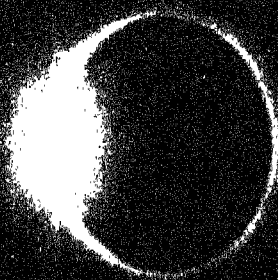
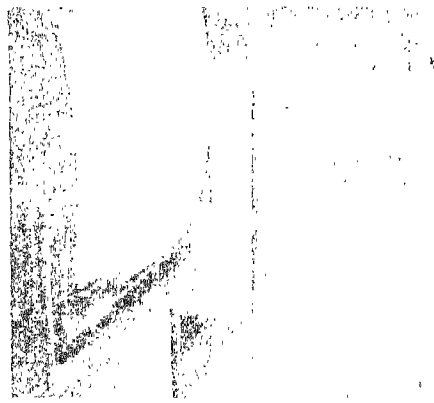
The CIET regularly send capsules of its ETV programmes to Doordarshan for telecast on the Primary and the Metro channels in the afternoon hours. This is in addition to the regular ETV service titled 'Tarang', telecast six days a week for 45 minutes in the morning hours and received in all Hindi-speaking states and UTs. Programme capsules (307) containing 872 ETV programmes were sent to the Doordarshan for transmission.

SIETs of Orissa, Andhra Pradesh, Gujarat and Maharashtra provided similar ETV telecast service in their respective regional languages. ETV programmes (317) were transferred from 3/4" to 3/4" or 3/4" to 1/2" format for different purposes. Hindi and English versions of selected video programmes to provide support to Special Orientation for Primary Teachers (SOPT) project were prepared. Regional language versions of these programmes are being prepared. Two thousand copies of *Mathematics Club Activities* were distributed to the DIETs, State Education Departments, SIETs, SCERTs, Departments of NIE and RIEs. The material included in the document is based on 45 articles highlighting innovations in mathematics teaching at the primary school level. The matter culled from the newspaper *The Hindu*, was updated, edited and printed with the permission of the authors.

Assistance and expertise was provided in the organisation of the National Science Exhibition held at Teen Murti House in November 1995. The CIET participated in the International Film Festivals held at Tokyo, Chicago and Thiruvananthapuram, and sent a set of selected video/film programmes to each of the three competitions. One of CIET's programmes entered for special preview and discussion in the follow-up workshop at Colombo. Meetings of the Coordination Committee were organised to discuss and solve various problems of SIETs. This was followed by exchange of visits by CIET and SIETs faculty members, engineers and producers to provide specific assistance.

**Regional Level Inputs to Educational Technology**

The RIE, Ajmer completed a study regarding 'Development of classification reasoning using computers'. The outcomes of the project inter alia included (i) development and validation of tasks for training and testing of reasoning abilities of students for computer programmes, and (ii) a User Manual.

The RIE, Mysore conducted a script-writing workshop for DIETs faculty members and a few selected school teachers for preparing audio cassettes useful for transacting the primary school curriculum and enlisting audio support. About 300 audio cassettes in the area of language teaching, including skills such as listening, speaking, language usage and language comprehension, developed by the RIE are being used effectively in many primary schools where two-in-one tape recorder facility is available. The feedback from the schools was encouraging and MLL-based audio programmes in the area of language teaching for primary school teachers were produced in collaboration with DSERT, Bangalore at the request of the Government of Karnataka. The audio programmes were tried out on a sample of 2,068 children of Classes III and IV of 41 primary schools spread over eight districts of Karnataka.

*The total solar eclipse*

*The diamond ring*

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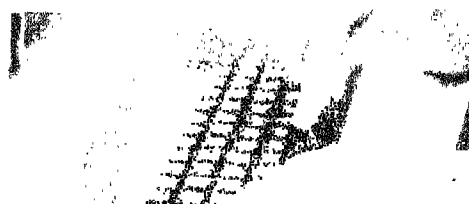
# COMPUTER EDUCATION

*Issues and problems in computer education and related research and development in modern technological aids/ media have been receiving attention in the programmes/ activities of the NCERT. A new Department of Computer Education and Technological Aids (DCETA) was set up under the NIE during 1995-96.*

## Computer Education and Technological Aids

Issues and problems in computer education and related research and development in modern technological aids/media have been receiving attention in the programmes/activities of the NCERT. A new Department of Computer Education and Technological Aids (DCETA) was set up under the NIE during 1995-96. The NCERT continued to engage itself in research and development of science equipment for schools for the production of prototypes, experimental try-outs and training of teachers on the new designs.

The NCERT's science kits were introduced in the school system during 1969-70 for the first time in the country. The continuity has been maintained and its two designs — Primary Science Kit (PSK) and Mini Tool Kit (MTK) — were included in the list of essential facilities for the primary level under Operation Blackboard. The Integrated Science Kit (ISK) designed on the lines of science curriculum for the upper primary level was one of the important components of the centrally sponsored scheme 'Improvement of Science Education in Schools'. The ISK is now a part of Operation Blackboard for elementary education. The existing science kit was reviewed and a number of kit items were refined and new kit items were included. Manuscripts of Teacher's Handbook of Science Activities for Classes VI, VII and VIII have been prepared. Molecular Model Kit in Chemistry for senior secondary schools was reviewed with the help of experts along with its manual. During the period, 859 PSKs, 131 ISKs and 384 MTKs were despatched to various demanding states and UTs. About 700 ISKs are under production. Modification of Mathematics Kit is in hand. Training of trade apprentices is a statutory obligation to the Government of India. Five trade apprentices in various trades were trained during the period under report. The kits developed by the NCERT were appreciated by foreign delegates from Bangladesh, Syria, Canada, Bhutan and Ethiopia.

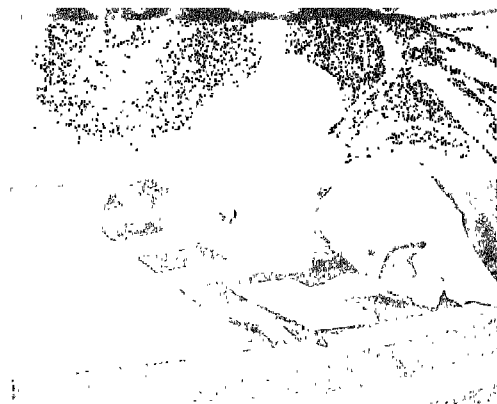
The areas for development of basic technical skills for the non-formal education students have been identified and the first draft of the curriculum for training of Inspectors was prepared. A light source for illuminating classrooms for non-formal centres in villages was developed. The components of technology education to be included in the NCERT textbooks for the lower primary level were identified. A Question Bank (disk) for secondary science BBC micro was prepared. Efforts are being made for in-house development of CAL software. With the availability of more powerful development and multi-media softwares and coursewares are to be developed for use in teacher training and classrooms.

A training programme 'Introduction to Word Processing' for nine officials of the NCERT was conducted. A book *Computer Literacy* has been published. Strategies are being developed for field try-out of the book. A faculty member of the NCERT presented a paper titled 'Development of virtual laboratory courseware at the tertiary level' in the International Conference of Educational Computing organised at the Technical Teachers' Training Institute, Chandigarh from 19 to 21 March 1996. A few demonstrations on multi-media application packages by software houses were organised. Demonstrations were also given in popularisation of the use of computers in teaching learning.

## Regional Level Inputs to Computer Education

The RIE, Ajmer conducted a study regarding 'Development of classification reasoning using computers'. The outcome of the project *inter alia* included development and validation of tasks for training and testing of reasoning abilities of students for Computer Programing and User Manual.

### *Reports and Other Materials Brought out during 1995-96*

- Computer Literarcy Book (printed)
- Question Bank for Secondary Science (mimeographed and floppy disks)

# 17

# SPECIAL PROGRAMMES

*The NCERT is providing academic and professional support to the DPEP launched by the MHRD with financial assistance from international agencies. The NCERT has entered into a contract with Ed.CIL (Education Consultants India Ltd) for implementation of the national component of the DPEP for curriculum, training and pedagogy, and research.*

## Special Programmes

The MHRD assigns to the NCERT certain special programmes that are operationalised with financial assistance from international organisations. Highlights of the activities conducted during 1995-96 under these programmes are given below.

## DPEP

The District Primary Education Programme (DPEP) is being built upon the experience gained in: (i) the implementation of the Bihar Education Project (BEP) (with UNICEF assistance) and the Lok Jumbish Project (with SIDA assistance), (ii) the planning of Basic Education Project in Uttar Pradesh ( with IDA assistance) and (iii) the implementation of the Andhra Pradesh Primary Eudcation Project (with ODA assistance), Shiksha Karmi Project (with SIDA assistance) and Mahila Samakhya (with Dutch assistance). In BEP and UP projects too, investment is concentrated in the chosen districts and district-specific investment is complemented by a few state level interventions such as strengthening of state level institutions. Where DPEP goes beyond the UP and Bihar Projects is in (i) the emphasis on local area planning with the district plans being formulated in their own right rather than being derived from a state plan project document, (ii) greater rigour and infusion of professional inputs in planning and appraisal, (iii) more focussed targetting on educationally backward districts, and (iv) more focussed coverage on primary stage (Classes I-V and its NFE equivalent), with stress on education for girls, and for socially disadvantaged groups. (In states where enrolment and retention is near universal at the primary stage, support can be considered for the upper primary stage.

### Objective

The objective of DPEP is to develop and implement, in the districts selected, a replicable, sustainable cost-effective programme so as to: (i) reduce differences in enrolment, drop out and learning achievement among gender and social groups to less than 10 per cent, (ii) raise average achievement levels by atleast 25 per cent over measured baseline levels, ensuring achievement of basic literacy and numeracy competencies and minimum of 40 per cent achievement levels in other competencies by all primary school children, and (iii) provide, according to national norms, access for all children to primary education (Classes I to V), i.e. primary schooling, wherever possible, or its equivalent non-formal education.

### Strategies

The strategies adopted for achieving the above-stated objectives include: (i) strengthening school/community organisations and carrying out awareness campaigns focussed particularly on girls and SC/ST students, (ii) providing training and supervision support to the Village Education Committees (VECs), (iii) construction of new schools and classrooms, repair and rehabilitation of existing schools along with installation of toilets, supply of drinking water and electricity which would make a major and visible construction to the quality of service, (iv) development of teachers' in-service training as the principal means of introducing MLL-based classroom practice, improved textbooks and raw materials for learning language and mathematics in early grades, (v) providing annual grants to school community organisations and primary teachers for the purchase of consumable supplies and materials to be used in preparing teaching aids, (vi) gender review of curricula and textbooks and teacher sensitisation through training and appointment of women to atleast five per cent of the non-teaching posts, and (vii) establishment of non-formal primary classes as alternatives to formal schooling for isolated communities and for working children with emphasis on developing local-specific options and strategies including those that would involve NGOs in the delivery of services.

The DPEP is being conducted in the states of Assam, Haryana, Maharashtra , Kerala, Karnataka, Tamil Nadu and Madhya Pradesh. Steps are being taken to cover some additional states for which NCERT's inputs may be required.

The NCERT is providing academic and professional support to the DPEP launched by the MHRD with

financial assistance from international agencies. The NCERT has entered into a contract with Ed.CIL (Education Consultants India Ltd) for implementation of the national component of the DPEP for curriculum, training and pedagogy, and research. Resource groups from the NCERT faculty in its constituents have been constituted to carry out the contracted activities in task team mode.

**Baseline Assessment Studies under DPEP**

Baseline Assessment Studies (BAS) under DPEP in the states of Andhra Pradesh, Bihar and West Bengal were planned, designed and completed during 1995-96. The reports of these studies were made available to the MHRD and other concerned authorities. The Progress of the BAS in the states of Himachal Pradesh, Orissa and Gujarat was observed and monitored. Training of the states' resource teams and master trainers in various operations of the conduct of BAS was organised. A publication *Framework for Data Analysis for Baseline Assessment Study* with a view to guide the states to analyse data for report writing was brought out.

**Activities of the DPEP Resource Group on Curriculum Development**

1. *Development of Revised Version of the Minimum Levels of Learning (MLLs)*

   On the basis of analysis of research and experience pertaining to implementation of MLLs, a draft synthesis report was prepared. The draft of the revised MLLs at the primary stage was discussed in a national workshop and after obtaining feedback it was finalised by a panel of experts. This document has now been widely disseminated for obtaining feedback.

2. *Documentation of Researches and Materials in the Area of Multigrade Teaching*

   The researches and materials were collected and analysed. The report, which includes definition of the concept of multigrade teaching, review of materials and findings of review of materials, has been disseminated.

3. *Documentation of Researches and Good Practices in the Area of Reading and Mathematics Learning in Early Grades*

   The information collected was analysed and synthesised. A report has been prepared and disseminated for obtaining feedback.

4. *Identification of Numeracy and Reading Readiness Levels of Class I Entrants*

   The study was conducted in Karnataka, Madhya Pradesh, Haryana, Assam and Delhi. The result trends reveal that under reading readiness, children are weak in the areas of audio-visual association and auditory discrimination. Under visual numeracy readiness, the weakest areas observed were sequential thinking, number knowledge and pre-number concepts. A synthesis report has been prepared.

5. *Manual for Writers of Textbooks, Workshops and Teachers' Handbooks*

   A draft document was prepared and reviewed. The manual has now been finalised.

6. *Development of Prototype Textbooks and Teachers' Handbooks.*

   The materials have been developed. Try-out of the materials is being undertaken at the regional level through the RIEs.

7. *Supplementary Learning Materials in Mathematics for Classes I and II*

   Supplementary learning materials in mathematics for Classes I and II have been developed.

8. *Guidelines for Material Development with a View to Enhance Reading Skills and Comprehension*

   Studies have indicated that children in primary schools have very low levels of achievement

particularly in the area of reading comprehension. A likely reason for low performance is that most of the children are first-generation learners who do not get the benefit of a 'stimulating reading environment' at home either in terms of materials or good role models. Most of the children enter primary schools without any early childhood education experience. The adverse entry levels of children demand a special reading programme at primary stage for development of necessary skills and motivation associated with reading. It is in this context that a Reading Skills and Comprehension Enhancement (RACE) package has been envisaged. Guidelines for material development were prepared and sent to the RIEs who have taken up activities related to development of RACE package.

9. *Evaluation of Instructional Materials Developed by Various DPEP States*

   The tools for evaluation of competency-based instructional materials have been prepared and sent to the RIEs. The RIEs have conducted workshops at regional levels to evaluate the materials developed under DPEP. The report of the programme has been prepared.

**Activities of the Training and Pedagogy Resource Group**

1. *Training of Primary Teachers and Resource Persons at Cluster, Block and District Levels*

   A design in content-upgradation, pedagogy for quality improvement and awareness about Universalisation of Elementary Education (UEE) and for recruitment of primary teachers, resource persons at cluster, block and district levels has been developed. Training inputs in these areas for different functionaries have been delineated. The design envisages a 12-day in-service training of primary teachers with one-day monthly meetings at cluster level, followed by booster training of three days every year at the Block Resource Centre (BRC). Guidelines for preparation of material and organisation of in-service training programmes have also been specified. Highlights of the training design were shared with State Project Directors of DPEP states.

2. *Documentation of In-service Training Practices*

   In-service training practices in vogue in government and non-governmental organisations (NGOs) have been documented. A few good in-service training practices have been documented for dissemination.

3. *Appraisal of Training of Primary Teachers and Other Functionaries*

   The workshops were organised for appraisal of the designs and material developed by DPEP states for training of primary teachers and other functionaries. The appraisal report recommends that the states should assess training needs of different personnel through research studies and consider specific inputs for trainers in the light of their responsibilities. The appraisal report has pointed out that content enrichment of primary teachers in different school subjects has not been given due emphasis and the report further highlights that the training designs developed by different states do not specify explicitly the objectives of training visualised for different categories of personnel.

**Activities of the DPEP Resource Group on Research**

1. *International Research Seminar*

   An International Seminar on School Effectiveness and Learning Achievement at Primary Stage was organised at New Delhi from 17 to 19 July 1995. About 90 scholars including 18 international scholars participated in the Seminar. The proceedings of the Seminar were published. The papers discussed in the Seminar were also published and widely disseminated.

2. *Strengthening Institution Research Capacity*

   A training package to empower primary teachers to adopt action research approach to tackle day-to-day teaching learning problems was developed. A two-day training workshop was conducted in Assam from 17 to 19 November 1995 for primary teachers using the training package on action research.

3. The NCERT faculty was prompted to take up research studies on issues and problems related to Universalisation of Primary Education (UPE).

Research proposals put up by the NCERT Research Group were reviewed in a meeting held from 20 to 22 November 1995. The implementation of the approved programme was monitored and the progress was reported to the respective Missions from time to time. A total of 27 DPEP-related research projects are in progress.

4. A conference of Primary Teachers on Competency Based Teaching was organised.

5. A meeting of the senior faculty of the NCERT was organised to deliberate on research issues that may engage attention of various Constituents of the NCERT. Steps have been initiated for similar meetings to be organised by the Constituents/ Departments of the NCERT in their respective functional areas of school education.

**Other DPEP Activities**

1. *Review of Present Interventions for Tribal Education: DPEP Tribal Sub-study*

   This World Bank sponsored study, which aimed at reviewing various interventions planned for meeting educational needs of tribal children, was conducted by the NCERT in seven DPEP states (Assam, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa and Tamil Nadu). Various types of interventions planned and implemented by these states were reviewed and analysed in terms of improvement in enrolment, retention and achievement and reduction in drop-out rates. The results of the study are being utilised in planning education for tribal children in DPEP districts.

2. *Household, Community and School Factors and Enrolment, Retention and Achievement: Tribal Sub-study*

   This World Bank sponsored study was undertaken as a derivative study by extrapolating data from various DPEP studies like Tribal Study, Baseline Study and Gender Study. The study inter alia highlighted the need for tribe-wise planning instead of district-wise planning, decentralisation of curriculum in the cultural context of tribes concerned, instructions in the mother tongue of the child (tribal dialects) in initial two years of schooling with a mechanism of transition to the state language, and orientation of teachers in concerned tribal dialect and cultural ethnic background of the tribes concerned.

3. *Gender Studies*

   Reports on DPEP Gender Studies for the states of Assam, Haryana, Madhya Pradesh, Maharashtra, Karnataka, Kerala, Orissa and Tamil Nadu were prepared along with an overview. Seven volumes of tables of district, state and national levels have been prepared for use by policy planners and researchers.

**Regional Level Inputs to DPEP**

At the regional level, the NCERT, through its Regional Institutes of Education (RIEs), is assisting the DPEP states in development and evaluation of instructional materials and training of personnel, etc.

The RIE, Ajmer has developed training packages in Hindi, mathematics, environmental studies (social studies), and environmental studies (science) after identifying the training needs of teachers of the DPEP State of Haryana and the Basic Education Project State of Uttar Pradesh. Each package details need-based learner-centred instructional strategies appropriate to multigrade and non-multigrade situations. Based on a sample of Village Education Committees (VECs) and Village Panchayats drawn from the DPEP districts of Hissar and Haryana, guidelines on the roles of VECs and Village Panchayats in promoting Universal Primary Education (UPE) were developed. Specific training inputs to strengthen VEC's role in promoting DPEP were also identified.

As a capacity-building measure, DIETs personnel drawn from the DPEP districts of Haryana and Uttar Pradesh were trained in techniques and strategies of action research using field data-based illustrations. Numeracy and reading readiness levels of Class I entrants were identified. The research projects commissioned to provide interventions to the DPEP include: (i) Empowering primary teachers for effective classroom transaction, (ii) Effect of learning processes on learning outcomes, (iii) Study of role perception of VEC members of DPEP districts in Haryana in terms of community participation in school management, and (iv) Comparative study of three-tier and two-tier teachers training models with reference to district and spill-over benefits.

The RIE, Bhopal is providing educational inputs to the DPEP by way of development of instructional materials, and identification of handicapped children. Personnel from DIETs are being trained in the education of the disabled children. The component of the Integrated Education of the Disabled has been added to the teacher education curriculum at the primary and secondary levels.

The RIE, Bhubaneswar provided inputs to DPEP through development of (i) Exemplar materials in language and mathematics, (ii) Supplementary learning materials in mathematics for Classes I and II, (iii) Reading ability and RACE package, and materials developed in the areas of reading and mathematics, (iv) Multigrade teaching, and (v) In-service training practices in India and abroad. The training material available in north-eastern states was evaluated. Key persons and resource persons from DPEP states of the region were trained.

The RIE, Mysore documented: (i) in-service teacher training practices in India with special reference to southern states, (ii) the research done and materials developed in the area of multigrade teaching, and (iii) researches and good practices in the area of reading and mathematics learning in early grades. Documentation of exemplar instructional materials (textbooks, teachers' handbooks and workbooks) in Kannada language for Classes I and II is in progress. Work on identification of number and reading readiness level of Class I entrants has been completed. Textbooks and instructional materials developed by the concerned DPEP states were evaluated. Supplementary learning materials in mathematics for Classes I and II and a RACE package were developed and field-tested. Other developmental activities in progress include: (i) Development and try-out of training package in the techniques of scoring, tabulation and processing of research data for BRC coordinators and cluster heads of DPEP districts, (ii) Development of training package for teachers based on the identification of teaching learning difficulties in mathematics in Class I of Tamil Nadu schools, (iii) Development of training package in mathematics for primary school teacher trainers, and (iv) Development of training package in environmental studies for primary school teacher trainers.

## National Population Education Project

**Curriculum and Material Development**

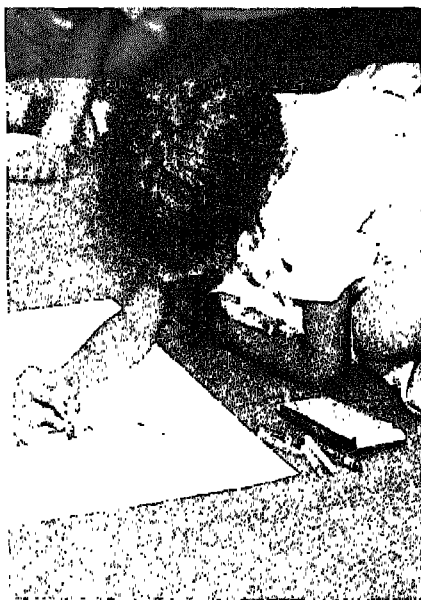
As a follow-up of the recommendations of the National Seminar on Adolescence Education, a draft package of Basic Materials on Population Education was developed. This includes: (i) A general framework of adolescence education, (ii) Content enrolment materials on adolescence education, (iii) Questions and answers on adolescence, and (iv) Student's activities.

A Book of Readings on Family, Society and Population was finalised. The draft of a training package for Non-Formal Education Instructors was prepared. Two issues of *Population Education Bulletin* were published and disseminated. A background paper on 'NPEP beyond the third cycle' was prepared and sent to concerned national, state and international agencies. The training package on AIDS education was translated into Hindi.

**Training**

An intensive training programme for states' project personnel was organised. A team of students from International Institute for Population Sciences, Bombay was oriented.

**Co-curricular Activities**

Co-curricular activities conducted at the state and district levels on the occasion of the World Population Day, the Population Education Week and the World AIDS Day were coordinated. The national component of International

**Area-Intensive Education Project for Human Resource Development**

The Area-Intensive Education Project (AIEP) aims at developing a viable and replicable model of EFA focussing on improvement of pre-school, primary, non-formal and adult learning in selected geographic areas as well as establishment of complementarity among these programmes. It is a holistic approach and draws more strength by linking itself with programmes relating to health and development concerns. It adopts area- and community-specific community participation, flexibility, decentralisation in planning and management and promoting inter-sectoral coordination. The AIEP was initiated in six blocks — one block in each of the six states/UT (Maharashtra, Mizoram, Orissa, Tamil Nadu, Uttar Pradesh and Dadra and Nagar Haveli) covering 542 villages. The number of villages was increased to 1756 in 16 blocks of the same districts in a phased manner.

The outcomes of the project vary from state to state, but there are some commonalities such as the following:

- Increase in enrolment and retention of children in primary schools; so much so that in many villages cent per cent enrolment has been achieved.
- Complimentarity among pre-school, primary, NFE and adult learning being realised.
- Various strategies for community mobilization and partnership have emerged.
- Inter-sectoral coordination is being realised through the coordination committees at various levels.
- Tested in 1756 villages, model for participatory micro-planning has been developed which resulted into development of synthesised block plans.
- Community education and development centres in 1756 villages have become the nucleus for promoting educational activities.
- Joyful learning has been introduced in Maharashtra, Orissa, Uttar Pradesh and Dadra and Nagar Haveli in order to achieve MLLs by children more effectively and expeditiously.
- The model of micro-planning, community mobilisation, etc., developed under the project, are being adopted by the states for DPEP and other programmes.
- Very simple tools and strategies for monitoring of project's key indicators as well as check-list for supervision of activities have been developed and adopted by the states.
- One of the vital innovations of the project is that it functions within the existing state system.

During 1995-96, a meeting of the BDOs/BEOs and orientation of staff of MPRCs was convened. A planning meeting of Project Coordinators and Heads of MPRCs was also organised. A document *People on the Move* has been published and widely disseminated. The exercise and experiences of the AIEP project, particularly micro-planning and programming, community participation, inter-sectoral coordination, tribal education and joyful learning, etc. are relevant to the DPEP and the EFA programmes.

Poster Contest in Population Education was organised.

**Evaluation and Research**

A mid-term evaluation study of NPEP was conducted by the Society for Applied Research in Education and Development. Three research studies in population education, sponsored during the previous year, were received, synthesised and circulated. The Annual Project Progress Review (PPR) meetings were organised to review the implementation of project activities and to prepare work plans and budget estimates for the next year.

**Monitoring**

Quarterly progress reports on NPEP from 29 states/UTs were received, reviewed, consolidated and sent to all the concerned agencies. Faculty members visited the State Population Education Cells to monitor implementation of the project.

**Documentation**

A Bibliography on AIDS Education was prepared and disseminated. Materials on population education were procured and disseminated to various institutions and individuals.

**UNFPA/UNESCO-sponsored Programmes**

The following two training programmes were organised for the Iranian Population Education project personnel:

(i) One-month training programme for five Provincial Coordinators.

(ii) Two-month training programme for two Curriculum Developers.

An attachment programme in population education for two teacher educators from Ghana was organised and an inter-country study visit programme for the project personnel from Sri Lanka was coordinated.

**Regional Level Inputs**

The RIE, Bhopal undertook (i) A study of students' knowledge and attitudes about adolescence education and opinion of teachers and parents about population education and its introduction in the schools, and (ii) short-term research projects in population education at the M.Ed. level. DIETs faculty members were oriented on issues and strategies related to population education. The State Education Department is being assisted in curriculum development which inter alia includes population education component.

*The RIE, Bhubaneswar has developed training materials on Environmental Orientation to School Education for use in in-service training programmes*

The RIE, Mysore completed a research project 'Pattern of values related to family life education held by adolescent and quality of family life' under the NPE project.

## Reports and Other Materials Brought out during 1995-96

- Adolescence Education: A Report of the National Seminar
- Training Strategies in Population Education: A Cost-effectiveness Analysis (mimeographed)
- *Vidyalayon Mein* AIDS *Shiksha*: Training Package (unpublished)
- Population Education Bulletin (two issues)

**Environmental Orientation to School Education**

The MHRD sponsored scheme of Environmental Orientation to School Education envisages development of region-specific environmental education training materials in regional languages which could be used by the DIETs for training of primary school teachers. Five resource groups, one each in RIEs at Ajmer, Bhopal, Bhubaneswar and Mysore, and one at the NIE, New Delhi were constituted to carry out the project. In the first phase, the curricula of states in each region were analysed with the help of state personnel and resource persons. The main areas of environmental messages were identified as the core content of the training modules. In the second phase, training modules were developed for the regions covering the region/state-specific environmental situations.

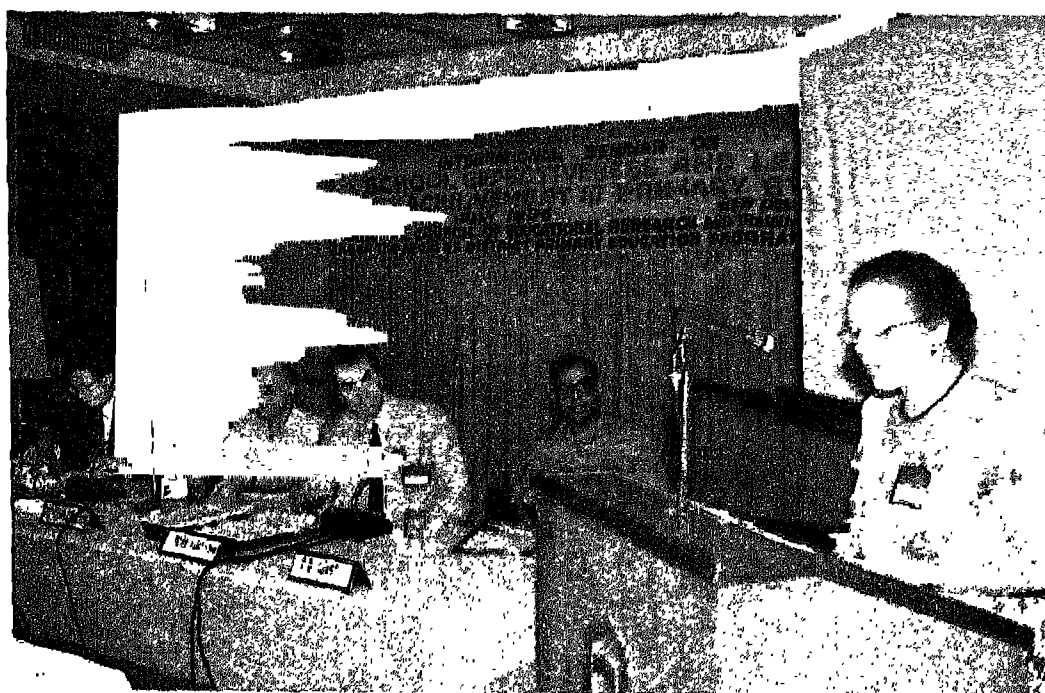
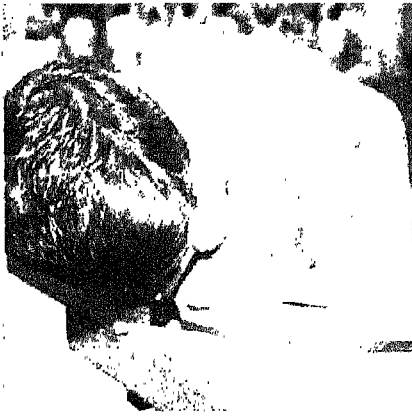
**Regional Level Inputs**

The RIE, Bhopal organised workshops/training programmes for identification of environment-related concepts and activities and prepared training materials for Master Trainers. The Institute assisted the states and the Rajiv Gandhi Primary Shiksha Mission in Environmental Orientation to Education Programmes.

The RIE, Bhubaneswar has developed training materials on Environmental Orientation to School Education for use in in-service training programmes conducted by DIETs for teachers of the primary and upper primary schools. The materials will be translated into the regional languages of the eastern states to facilitate their contextual use.

After careful analysis of all the textbooks of the primary and upper primary stages in terms of environmental education components, the RIE, Mysore developed training materials in English for use in the teachers' training programmes of the DIETs and other training institutions at the primary level. These materials will be translated in the regional languages.

The RIE, Ajmer identified the key concepts having environmental orientation through analysis of textbooks of Classes III to VIII of the northern region, and modules covering nine thematic sections were developed by drawing content from interdisciplinary perspective and providing a variety of activities and situations to meet the needs of students, teachers, and teacher educators.

*The Minister for Human Resource Development, Shri Madhavrao Scindia, releasing special issue of the* Indian Educational Review *on DPEP studies at the International Seminar on School Effectiveness and Learning Achievement at Primary Stage on 19 July 1995*

*Ms. Abby Rubin Riddell of the Institute of Education, University of London, making presentation in the International Seminar on School Effectiveness and Learning Achievement at Primary Stage, 17-19 July 1995*

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# TALENT SEARCH

*The NCERT under its National Talent Search (NTS) scheme awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The NCERT continued carrying out the task of selection of students for admission to Class VI of the Jawahar Navodaya Vidyalayas (JNVs).*

## Identification and Nurturance of Talent

In the area of talent search, the NCERT is conducting the following major programmes:

- National Talent Search
- Technical Support to Jawahar Navodaya Vidyalayas

## National Talent Search Scheme

The NCERT under its National Talent Search (NTS) scheme awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the country. During 1995-96, the candidates were required to appear in all the eight subjects at the Class X level instead of any four subjects as was the case in previous years.

The selection for the award under the NTS is done at two stages. The first stage selection was done by the states/UTs through written examinations between October 1994 and January 1995. The stipulated number of candidates were recommended for the second level test which was held on 14 May 1995 at 32 centres all over India. The details of number of scholarships awarded by the NCERT during 1995-96 are given below.

**Number of NTS Scholarships Awarded during 1995-96**

| S. No. | States/UTs | Quota Allotted | Number of Students Appeared in second Level Test | Number of Scholarships Awarded (General) | Scholarships Awarded to SC/ST |
|---|---|---|---|---|---|
| 1. | Andhra Pradesh | 195 | 181 | 30 | 3 |
| 2. | Arunachal Pradesh | 25 | 23 | - | - |
| 3. | Assam | 90 | 88 | 4 | 2 |
| 4. | Bihar | 215 | 211 | 75 | 6 |
| 5. | Goa | 25 | 22 | 1 | - |
| 6. | Gujarat | 165 | 114 | 3 | - |
| 7. | Haryana | 70 | 69 | 11 | 1 |
| 8. | Himachal Pradesh | 35 | 33 | 9 | - |
| 9. | Jammu and Kashmir | 25 | 16 | 2 | - |
| 10. | Karnataka | 170 | 169 | 57 | 3 |
| 11. | Kerala | 190 | 186 | 41 | 6 |
| 12. | Madhya Pradesh | 130 | 124 | 16 | 7 |
| 13. | Maharashtra | 365 | 365 | 132 | 11 |
| 14. | Manipur | 25 | 24 | - | 2 |
| 15. | Meghalaya | 25 | 25 | 1 | 3 |
| 16. | Mizoram | 25 | 21 | - | - |
| 17. | Nagaland | 25 | 22 | - | - |
| 18. | Orissa | 155 | 154 | 30 | 6 |
| 19. | Punjab | 100 | 99 | 32 | - |

**Number of NTS Scholarships Awarded during 1995-96** *(contd)*

| | | | | | |
|---|---|---|---|---|---|
| 20. | Rajasthan | 95 | 92 | 46 | 3 |
| 21. | Sikkim | 25 | 14 | - | - |
| 22. | Tamil Nadu | 245 | 242 | 54 | 3 |
| 23. | Tripura | 25 | 22 | 1 | 1 |
| 24. | Uttar Pradesh | 430 | 242 | 61 | 4 |
| 25. | West Bengal | 265 | 249 | 34 | 7 |
| 26. | A. N. Islands | 10 | 10 | - | - |
| 27. | Chandigarh | 10 | 10 | 7 | - |
| 28. | D. & N. Haveli | 10 | 4 | - | - |
| 29. | Delhi | 50 | 50 | 33 | 1 |
| 30. | Daman & Diu | 10 | 3 | - | - |
| 31 | Lakshadweep | - | - | - | - |
| 32. | Pondicherry | 10 | 10 | - | 1 |
| | | **3250** | **3051** | **680** | **70** |

**Total Number of NTS Awardees during 1995-96**

| | | |
|---|---|---|
| +2 Stage | Class XI 750, Class XII 749 | 1499 |
| ***Under-Graduate Level*** | | |
| Basic Science | | 191 |
| Social Science | | 84 |
| Engg./B. Tech. | | 1669 |
| Medicine | | 795 |
| ***Post-Graduate Level*** | | |
| Basic Science | | 20 |
| Social Science | | 3 |
| Engg./B. Tech. | | 3 |
| Medicine | | 49 |
| Management | | 24 |
| Ph. D. | | 5 |
| | Total | **4342** |

**Expenditure**

| | | |
|---|---|---|
| 1. | Disbursement of Scholarships | Rs 92,11,905.00 |
| 2. | Conduct of NTS Examination | Rs 7,16,061.00 |
| | Total | **Rs 99,27,966.00** |

## JNVs Selection Tests

The NCERT continued carrying out the task of selection of students for admission to Class VI of the Jawahar Navodaya Vidyalayas (JNVs). The JNVs have been established to (i) serve the objective of excellence coupled with equity, (ii) promote national integration, (iii) provide opportunities to the talented children to develop their full potential, and (iv) facilitate the process of school improvement.

The basis of admission in Jawahar Navodaya Vidyalayas is a selection test designed and evolved by the NCERT. The medium of the test is mother tongue or regional language. The Jawahar Navodaya Vidyalaya Selection Test (JNVST) to a large extent is of non-verbal, class-neutral designed to ensure that brilliant children from rural schools are able to compete without any disadvantage. The JNVST has three sections: (i) Mental Ability Test — 60 questions, Arithmetic Test — 20 questions, and Language Test — 20 questions. All the questions are objective type questions.

The tests were preapred and finalised in English and translated into 18 languages (Assamese, Bengali, Bodo, Garo, Gujarati, Hindi, Kannada, Khasi, Malayalam, Manipuri, Marathi, Mizo, Oriya, Punjabi, Sindhi, Tamil, Telugu and Urdu).

There is a provision for reservation of atleast 15 per cent seats for SCs, 7.5 per cent seats for STs and 33 per cent seats for girls. At least 75 per cent of the seats are filled from the schools located in rural areas and remaining from the urban areas. For selecting the candidates for admission in the session 1996-97, a selection test was also conducted in February 1996. For this test, 4,07,569 candidates were registered. Of these, 3,75,770 appeared in the examination.

During 1995-96, the JNVST was conducted in May and September 1995, and in February 1996. The total number of candidates registered for the session 1995-96 was 4,51, 429. Of these, 4,12,485 appeared in the examination. The number of candiates selected for the JNVs spread across the country was 25,775. Of these 8,873 were girls. The number of selected candidates for rural and urban areas was 19,710 and 6,065 respectively. The categorywise number of the selected candidates was as under :

| | |
|---|---|
| General Category | 10,599 |
| Other Backward Classes | 5,484 |
| Scheduled Castes | 5,825 |
| Scheduled Tribes | 3,967 |

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# EDUCATIONAL RESEARCH

*The Educational Research and Innovations Committee (ERIC), a standing committee of the NCERT, acts as a catalyst to promote and support educational research in the country. The ERIC also provides Research Fellowships and conducts Research Methodology Courses to create a cadre of competent research workers.*

## Promotion of Educational Research, Innovations and Dissemination

Promotion of research in school education and research-based policy perspectives for qualitative improvement of school education are important functions of the NCERT. Main functions in this area inter alia include: (i) strengthening of institutional research capacity, (ii) research-based documentation of information on education, especially school-related aspects, and (iii) providing channels of communication to reach out to the functionaries and beneficiaries related to educational research, and receiving feedback on research findings and their impact on education system. Apart from the constituent units of the NCERT undertaking research, the Educational Research and Innovations Committee (ERIC), a standing committee of the NCERT, acts as a catalyst to promote and support educational research in the country. The ERIC also provides Research Fellowships and conducts Research Methodology Courses to create a cadre of competent research workers.

## Research, Documentation and Dissemination

The NCERT brings out three journals of Educational Research, namely (i) *Journal of Indian Education (JIE)*, (ii) *Bharatiya Adhunik Shiksha (BAS)*, and (iii) *Indian Educational Review (IER)*. While the *JIE* and *BAS* concentrate on raising issues of educational concerns for debate and discussions based on research findings, the *IER* includes research papers which are previewed.

The Fifth Survey of Educational Research and Innovations is nearing completion. The trend reports under this Survey are being finalised. A bi-annual Indian Educational Abstracting Service is under implementation. This service includes information on Ph.D studies and other published researches with implications for improvement in school education.

## Policy Research

The following policy research studies are in progress:

1. Returning of Evaluated Answer Books to the Examinees.
2. Management of Primary Education by the Village Education Committees under the Panchayat Raj Act.
3. Performance of Multilingual Children at Primary Stage.

## Completed and On-Going Research Projects

Eight research projects supported by the ERIC were completed during 1995-96. These included two projects undertaken by the Constituent of the NCERT and six projects undertaken by the outside institutions/organisations. The work on four research projects undertaken by the Constituents of the NCERT and 38 research projects undertaken by outside research institutions continued during 1995-96.

**Research Projects Completed during 1995-96**

| *S. No.* | *Title of the Project* | *Principal Investigator* |
|---|---|---|
| 1. | A Study of Vocational Behaviour of Creative Girls | Dr Asha Bhatnagar<br>Dr. Sushma Gulati<br>NCERT |
| 2. | Role of Acculturation in the Development of Values among Children: Maternal Views | Dr A. K. Srivastava<br>NCERT |

**Research Projects Completed during 1995-96** *(contd)*

| S. No. | Title of the Project | Principal Investigator |
|---|---|---|
| 3. | Impact of Experimental Deprivation and Motivational Feedback on Some Bheavioural Processes: A Development Study | Dr Aradhna Shukla Kumaon University Almora |
| 4. | Combating Learned Helplessness of SC/ST Students | Dr F. M. Sahoo Bhubaneswar |
| 5. | A Study of Administrative, Academic and Personal Problems as Faced by Principals, Teachers and Students of NVs of Rajasthan | Dr C. M. Sharma University of Rajasthan |
| 6. | An Investigation into the Problems of Urdu Medium Students in Learning English | Dr R. P. Srivastava Jamia Millia Islamia New Delhi |
| 7. | Exploration into Brain Preference of the Adolescent Girl Students in Relation to Giftedness and Behavioural Intelligence | Dr Rujuta Vinod Pune |
| 8. | Children's Education among the Primitive Girl Students in Relation to Giftedness and Behavioural Intelligence | Dr G. Eswaraiah Centre for Social Development Andhra Pradesh |

**On-Going Research Projects during 1995-96**

| S. No. | Title | Principal Investigator |
|---|---|---|
| ***Departmental Projects*** | | |
| 1. | A Study of Internship in Teaching with a view to Develop Strategies for its Improvement | Dr G.N.P. Srivastava RIE, Bhopal |
| 2. | A Study of Development of Classification Reasoning Using Computers | Dr S.C. Jain RIE, Ajmer |
| 3. | Teacher Educators in Perspective Exploration in their Social Origins, Preferences and Professional Productivity | Prof. V.K. Raina DTEE, NCERT |
| 4. | Development of a Science Technology Society (STS) Approach to Teaching Science in Middle Schools and Try-out of its Effectiveness in Selected Schools | Prof. A.C. Banerjee RIE, Ajmer |
| ***Outside Projects*** | | |
| 1. | Development of English Language Test at School Level | Dr Rama Mathew Hyderabad |
| 2. | Development of Moral Values among Adolescents through Curriculum Planning: A Moral Action Model | Dr R.R. Singh Udaipur |

On-Going Research Projects during 1995-96 *(contd)*

| S. No. | Title | Principal Investigator |
|---|---|---|
| *Outside Projects (contd.)* | | |
| 3. | An Exploration into the Nature of Education as an Area of Study | Dr M.S. Yadav Baroda |
| 4. | Psycho-Social Correlates of Career Choice among High School Students | Dr G. Mohan Kumar Bangalore |
| 5. | A Study of Attitudinal Change in Pre-service Student Teacher Behaviour through Use of Action Research Strategy | Prof. Bachaspati Dwivedi Varanasi |
| 6. | Evaluation of the Working and Management of Navodaya Vidyalayas in North-Eastern Region of India | Dr P. P. Gokulanathan Shillong |
| 7. | Assessment and Incidence of Special Education Needs | Dr (Smt.) Cynthia Pandian Madras |
| 8. | A Study of Social Curricula and Textbooks of +2 Stage from the Standpoint of Peace Promotion with a View to Developing Curricula for Peace Education | Prof. Susheela Bhan New Delhi |
| 9. | A Study of Family Background and Perceived School Environment as Characteristics of Slow Learners | Prof. P.K. Das Howrah |
| 10. | Bheavioural Analysis and Modification of Parent Training Techniques involved in Improving Study and Homework Behaviours of their Academically Backward Children | Dr S. S. Kaushik Varanasi |
| 11. | A Study of Scientific Temperament among Junior High School Students and their Teachers | Prof. V.K. Dubey Varanasi |
| 12. | Innovative Institutions and their Programme for Professional Development of School Teachers in India | Prof. Mohd. Miyan New Delhi |
| 13. | A Study of the Impact of Key Insitutional and Instructional Variables on Training Outcomes in College of Education | Dr A. K. Gupta Jammu |
| 14. | Congnitive Process, Cultural Adaptation and Education of Children of Some Tribal Groups | Dr R. C. Mishra Varanasi |
| 15. | Construction and Standardisation of Tactile Test of Intelligence (Verbal and Non-verbal) suitable for Visually Disabled Children of 11 to 19 Years of Age | Dr Sunita Sharma Aligarh |
| 16. | An Evaluation of Certain Aspects of Total Literacy Programme (*Akshara Thapasman*) with Special Reference to the Education of Children (Age-group 9-14 Years) in Chittoor District of Andhra Pradesh | Dr P. Adinarayana Chittoor |
| 17. | Integrated System of Education in Bihar—A Study of Adjustment of the Handicapped Students | Dr Shashi Prabha Patna |
| 18. | Structural Constraints and Educational Development: A Study of Educational Backwardness among Tribals in Bihar | Dr R. P. Sinha Patna |

On-Going Research Projects during 1995-96 *(contd)*

| S. No. | Title | Principal Investigator |
|---|---|---|
| ***Outside Projects*** *(contd.)* | | |
| 19. | A Study of Effectiveness of Mastery Learning Approach in Teaching Mathematics at the Secondary Level of Education in West Bengal | Prof. M. M. Chel West Bengal |
| 20. | A Developmental Investigation of Onset Progress and Stages of Literacy Acquisition : Its implications for Instructional Process | Dr Pratibha Karanth Mysore |
| 21. | Standardization of Assessment List for Pre-school Children (2-5 years) | Dr Veena Mistry Vadodara |
| 22. | Reducing Burnout in Women Teachers | Dr (Ms) Neelima Misra Lucknow |
| 23. | A Comparative Study of the Personality Patterns and Academic Achievement of SC and ST Students and Non-SC/ST Students Studying in Ashram Schools and Non-Ashram Schools in Orissa | Dr B.C. Mishra Orissa |
| 24. | Early Childhood Education and its Need for Universalisation of Elementary Education | Prof. Jagannath Mohanty, Sambalpur |
| 25. | Development of Concepts Relating to Measurement among Visually Impared Children | Dr Debjani Sengupta Calcutta |
| 26. | Development and Evaluation of Child-Centred Curriculum for Mentally Handicapped Children | Dr (Smt.) R. Malhotra New Delhi |
| 27. | Development of Low-Cost Functional Assessment Kit (LOFAKT) and Studying the Relationship between Visual Acquity and Visual Efficiency of Low Vision Children | Dr M.N.G. Mani Coimbatore |
| 28. | Population Socialization among the Rural High School Students, Parents, Teachers and Legislators | Dr Y.P. Aggarwal Kurukshetra |
| 29. | Effectiveness of the Local Resources in Biology Education at the Secondary Level in U.P. | Dr G. S. Paliwal Garhwal |
| 30. | Strategies to Develop Reading Skills in Hearing Impaired Children at High School Level | Dr P. Vimla Devi Triputi |
| 31. | Teacher Expectations in Indian Schools, their Effect on Teaching Process and Student Outcomes | Dr N.C. Dhoundiyal Almora |
| 32. | Development of a Career Maturity Inventory for Use with Female College/University Students | Dr (Smt.) Archana Shukla Lucknow |
| 33. | A Study of Feasibility of Involvement of Female Health Personnel in Women's Education Programme in Rural Community | Dr (Smt.) Purnima Mathur Delhi |
| 34. | Influence of Home Environment on Cognitive Development of Children in Age-Group 6-8 Years | Dr. Sudha Bhogle Bangalore |
| 35. | Impact of Job Experience on Burnout Syndrome in Teachers | Dr Uma Rangan Hyderabad |

**On-Going Research Projects during 1995-96** *(contd)*

| S. No. | Title | Principal Investigator |
|---|---|---|
| *Outside Projects (contd.)* | | |
| 36. | Interdisciplinary Approach to Experimental Learning in Primary Classes | Smt. K. Rajalaxmi Tadepalliguden |
| 37. | *Navachar Shikshan Samgari Ka Unopcharik Shiksha Ki Pragati Par Prabhava* | *Shri Nikunj Prakash* Narain, Bihar |
| 38. | Hand and Task Training Requirement for Blind Children | Dr Miriam Ittyerah Delhi |

**Publication Grant Scheme**

Three Ph.D /D. Litt theses/research reports were published with the partial assistance from ERIC as mentioned below:

| S.No. | Title | Name of the Author |
|---|---|---|
| 1. | Geometry Achievement - A Spatial Perspective | Smt. Phool Kaul NOIDA, Uttar Pradesh |
| 2. | A Study of Secondary School Students Attitude towards Various School Subjects | Dr P. V. Budheve Rajkot |
| 3. | National Information System in Education: A Comparative Study | Dr S. L. Verma NCERT |
| **Publication Grants Sanctioned for Ph.D. Theses** | | |
| 1. | A Study of Cost Effectiveness of Training Modalities in Population Education | Dr (Smt.) S.P. Yadav NCERT |
| 2. | A Study of Relationship between Stages of Cognitive Development and Acheivement Levels of Junior High School Students in Science | Dr. S.C. Tripati Gorakhpur |
| 3. | Identification of Skills and Attitudes of Effective Physical Science Teachers | Dr (Ms) Seema Sharma Meerut |
| 4. | Relative Contribution of some Socio-Cultural and Familial Variables to over and under Achievement in Science at Class VIII level | Dr Poonam Chauhan Aligarh |

**ERIC Meetings and Seminars**

The 28th meeting of the ERIC was held on 15 September 1995 to review policy matters and to consider research proposals for financial assistance and other matters.

A Researcher's Seminar to monitor the progress of ERIC-funded projects was organised from 2 to 4 August 1995 at Inter-University Centre for Astronomy and Astro-Physics (IUCAA), Pune.

An Expert Group Meeting to scrutinize the fresh research proposals received for financial assistance under ERIC was held on28-29 November 1995 at Nainital.

**Sixth Educational Survey**

The Sixth All India Educational Survey (AIES) is being conducted jointly by the NCERT, the MHRD, the NIC and the states/UTs governments with 30 September 1993 as the reference date. The operations undertaken in conducting the survey incldue: (i) data entry and validation, (ii) development of validation and output software, (iii) scrutiny of the output of analysis software on a sample basis and comments thereon for its improvement and refinement, (iv) monitoring and progress of the data entry, validation and reconciliation, (v) guidance to states/UTs and monitoring of the progress, and (vi) sample image checking and error profile to ensure correct data entry. The provisional statistics of the survey were released by the Union Minister of Human Resource Development in December 1995.

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# INTERNATIONAL RELATIONS

*The NCERT undertakes UNESCO/APEID/UNDP sponsored projects/programmes and arranges meetings with delegations/experts from other countries for exchange of ideas and information in the field of school education. It also sponsors its faculty members for participation in international seminars/workshops/symposia/meetings/training programmes, etc. under the aegis of UNESCO/UNDP/UNICEF,*

## International Relations

The NCERT acts as an agency for implementing the provisions of Bilateral Cultural Exchange Programmes (CEPs) assigned to it and signed by the Government of India with other countries in the field of school education. It undertakes UNESCO/APEID/UNDP sponsored projects/programmes and arranges meetings with delegations/experts from other countries for exchange of ideas and information in the field of school education. It also sponsors its faculty members for participation in international seminars/workshops/symposia/meetings/training programmes, etc. under the aegis of UNESCO/UNDP/UNICEF, etc. The NCERT inter alia undertakes short-term on-the-job training programmes for foreign nationals in the field of school education. It also furnishes information on various aspects of school education in India to different countries, organisations and inernational agencies.

The National Development Group (NDG) was set up by the Government of India in the seventies in the context of the Asia and the Pacific Programme of Educational Innovation for Development (APEID) of UNESCO. The Secretariat of the NDG, serviced by the International Relations Division of the NCERT, has been stimulating educational innovations and performing coordination and clearing-house functions.

### Bilateral Cultural Exchange Programmes

Under Bilateral Cultural Exchange Programmes executed by the Government of India with different countries and under the items marked to the NCERT for implementation, educational materials/information were supplied to Governments of China, Hungary and Syria. Similarly, educational materials/doc- uments/reports under the CEPs have been received from the Federal Republic of Germany. The materials received under the CEPs are displayed in the International Resource Centre at the Library of the NCERT's headquarters in New Delhi. Exchange of experts with other countries is also undertaken.

### Foreign Visitors to the NCERT

During 1995-96, the NCERT received following educationists/ experts/delegations from different countries.

- A five-member delegation from Bangladesh led by Mr S. Y. Khan Majlish, Chief of Planning, MOE visited NCERT on 26-27 April 1995. The delegates were informed about the work being done in various Constituents of the NCERT particularly in the areas of curriculum development, textbook preparation and teacher training in secondary education.
- Mr Ahmed Essop, Director, Centre for Education Policy Development, Braamfortein, Johannesburg visited NCERT on 20 June 1995 and interacted with the Director and Joint Director, NCERT. He was briefed about the functioning and activities of the Council. He also visited CIET and discussed about its programmes and activities.
- Prof. Ahmed, Member, Planning Commission ANC (Education), Johannesberg, South Africa visited NCERT in July 1995 to get first-hand information about CIET's programmes/activities.
- A five-member delegation from Nepal headed by Mr S. B. Sharma Nyaupane, Joint Secretary, National Planning Commission, Nepal, visited NCERT on 30 August 1995. The delegates were briefed about the programmes and activities of the NCERT's Constituents. They also intereacted with the faculty members of the DME, DTEE, DESM and DESSH in the areas like examination reforms, teacher education and curriculum development.
- Dr A. M. Sharafuddin, Director, Campaign for Popular Education, Dhaka, Bangladesh visited NCERT on 5 September 1995 to get familiarised with science education programmes/films, etc.
- Ms Parbati Pudasimi, Head and Mr Rishi Shah, Secretary, Science Popularisation Project, Nepal visited NCERT from 19 to 21 September 1995. They were familiarised with the programmes and activities of CIET.
- A one-month training programme in Early Childhood Education (ECE) was organised from 18 September to 17 October 1995 at NIE, New Delhi for two

key functionaries, Ms Niuneath Safeeg and Ms.Farhanaz Abdulla, working in the area of pre-school education in the Department of Non-Formal Education, Male. They also visited Bal Niketan Sangh, Indore and its Balwadis (Pre-School Centres) and Anganwadis (Pre-Schools) in ICDS set up in rural areas of Haryana, to receive practical exposure of field situation.

- A six-member delegation from Bangladesh led by Mr A.K. Anisur Rahman, Joint Secretary (Development) Primary and Mass Education Division, visited NCERT on 10 October 1995. The delegates were briefed about the programme and activities of the Constituents of the NCERT. The delegation tried to gain experience about the low-cost school construction and involvement of the community in the school management. The memebrs interacted with the senior faculty members of the Workshop Department and CIET, NCERT.
- Mrs Jon Harmar, Principal Lecturer, Ms Di Booker, Manager, and Ms Marjolijn Jones, Manager from Adelaide (South Australia); Mr A. M. Shafi Uddin Ahmed, Director Curriculum and Mr Habibur Rahman, Curriculum Specialist from Dhaka (Bangladesh); Mrs Wan Absah Bt. W. Kadir, Deputy Secretary and Mr Abd. Rahim Hj. Ahmed, Department of Technical Education from Kuala Lumpur (Malaysia) and Dr Alcestis M. Guiang, Deputy Director General from Pasig City (the Philippines) attended the Sub-Regional Workshop to establish the UNESCO Network in the Asia-Pacific Region at PSSCIVE, Bhopal, from 30 November to 3 December 1995.
- Mr M. Zuhair Za'tarieh, Director of Educational Field and Mr Mohammad Talab, Senior Inspector of Schools from Syria visited NCERT under Indo-Syrian Cultural Exchange Programme from 18 December 1995 to 1 January 1996. The educationists were attached to the DESSH, NCERT and were provided training for two weeks in the area of English teaching. They also interacted with the faculty of the CIET and the Workshop Department and shared their experiences with the Director, NCERT and the Joint Director, NCERT on various areas of school education. They also visited RIE, Ajmer, interacted with the faculty members and observed classroom teaching of English at the Demonstration School, RIE, Ajmer. To enrich their knowledge about India, they visited historical places in Agra and Delhi.
- A delegation from Australia visited NCERT on 4 January 1996. The Director, Joint Director and other senior faculty members of the NCERT briefed the delegates about the programmes and activities of the NIE Departments. The group also held discussion with senior faculty members of the Publication Division, NCERT.
- A delegation from Sri Lanka visited NCERT on 5 January 1996 and held general discussion on different educational aspects with the Director and senior faculty members of the NCERT.
- Mr Joe Simson, BBC Representative, United Kingdom visited NCERT on 19 January 1996 and discussed about NCERT's plans to contribute to the Eudcational TV Channel.
- A six-week training programme on teacher education was organised from 23 January to 4 March 1996 for five members of Directing Staff of Higher Secondary Teachers Training Institutes of Bangladesh, viz. Md. Lutfar Rahman, Md. Animur Rahman, Dr Hari Pada Das, Md. Manunur Rashid and Md. Nurul Islam. The group also visited the RIEs at Ajmer and Bhopal and interacted with some faculty members regarding their problems in Bangladesh.
- Mr M.A.Y. Worgbeyi, Deputy Director Special Education, Ghana Education Service and Mr Nay Aheto, Director Teacher Training Institute, Akatsi, Ghana visited NCERT from 27 January to 12 February 1996. During their two-week study visit, they visited various governmental agencies/ institutions to understand special education and rehabilitation provisions and networking mechanisms in the country.
- Prof. (Mrs) Erika Kuendiger of University of Windsor, Canada visited NCERT from 29 January to 3 February 1996 and had a meeting with the Director, NCERT and the Heads of the NIE Departments. She shared her experiences with the mathematics faculty

and delivered a lecture on Perception of Pre-Service Teachers on School Achievement to the faculty members of NIE Departments.

- A 15-member delegation led by Mr Dawa Gyaltshan, Principal, Royal Technical Institute, Phuanlshading, Bhutan visited NCERT on 6 February 1996 and interacted with the Director, NCERT and Heads of DTEE, DPSEE, DESSH, DESM and Workshop Department regarding strategies being followed in promoting quality of school education in India. The delegation also visited the CIET, Publication Division and Workshop Department and showed keen interest in science kits. A set of teacher's handbooks for using science kits in local environment was presented to the delegation.
- A delegation from the National Human Rights Commission, New Delhi visited NCERT on 12 February 1996. The delegation interacted with the Director and senior faculty members of NIE Departments on the activities undertaken by the Council in the spread of Human Rights Education.
- A three-member delegation from Ethiopia visited NCERT on 13 February 1996. The delegates were briefed about the programmes and activities of the NIE Departments. The delegates also visited the Workshop Department where they were briefed about the production of science kits, mathematics kit, mini tool kit and equipments developed in chemistry for the National Open School.
- A five-member delegation from Australia led by Professor Spicer of Melbourne University visited NCERT on 20 February 1996. The delegates interacted with the Director and the Joint Director, NCERT about the functions of the Council at different levels of education, mainly at the school level.
- A study team on special education from Bhutan visited NCERT from 22 to 29 February 1996 and interacted with the faculty of the Department of Education of Group with Sepcial Needs (DEGSN). The team was briefed about the current initiatives taken by the NCERT in the area of special education and the achievements of the PIED and IEDC in different states/UTs.
- A group of 17 trainees from different countries attending the International Diploma in Educational Planning and Administration of NIEPA visited NCERT on 29 February 1996. The Director, NCERT along with other senior faculty members briefed them about the programmes and activites of the NIE Departments. The group also visited the CIET and interacted with the senior faculty members to understand its functions.
- H.E. Mr Roger N. Mcclay, Minister of Education along with four officials from New Zealand visited NCERT on 12 March 1996. The Director, NCERT and other senior faculty members briefed the dignitaries about the programmes and activities of the NCERT and discussed various issues relating to elementary education and secondary education.
- An eight-member delegation from Nepal headed by Dr I.R. Dhania, Vice Chairman, Higher Secondary Education Board, Nepal visited NCERT from 21 to 28 March 1996. The Director and the Joint Director, NCERT discussed with the delegates matters related to implementation of 10+2 system of education in India, training of teachers, development of the textbooks mainly in science and mathematics. They assured the team leader about assistance from the NCERT in the development of curriculum, textbooks and training of teachers in Nepal. The delegates also interacted with faculty members of some NIE Departments (DEME, DTEE, DESM, DESSH) and the Publication Division. The delegation also visited the various schools, i.e. Kendriya Vidyalaya, JNU, Navyug School Sarojini Nagar; Ramjas Public School, R.K. Puram and held general discussion on different aspects of school education and implementation of 10+2 system of education.

**Participation of the NCERT Faculty Members in International Programmes**

- Prof. A. K. Sharma, Director, NCERT, participated in the Asia-Pacific Regional Seminar on Educational Research sponsored by the Asia-Pacific Centre of Educational Innovations for Development (ACEID), UNESCO, and the Australian Council for Educational Research (ACER) at Melbourne,

Australia from 1 to 5 May 1995. He presented a paper titled 'Research Perspectives in School Education in India'.

- Prof. A. N. Maheshwari, Joint Director, NCERT, participated in Asia and Pacific Seminar on Educational Technology in Tokyo, Japan, from 3 to 11 October 1995.
- Prof. Arun K. Mishra, Joint Director, PSSCIVE, Bhopal, visited Jerusalem, Israel, from 13 to 18 June 1995, as MHRD's nominee for future collaboration with the Government of Israel in the field of Vocational Education.
- Prof. Arun K. Mishra, Joint Director, PSSCIVE, Bhopal, attended an Expert Meeting of UNESCO/UNEVOC on 'Equal Access to Girls and Women to Technical and Vocational Education' at Seoul (Korea), from 10 to 15 July 1995. He presented a Country Paper.
- Prof. Arun K. Mishra, Joint Director, PSSCIVE, Bhopal, attended a symposium on 'Future Trends in Adult and Continuing Technical and Vocational Education' (an UNESCO/UNEVOC activity) at Berlin, Germany, from 14 to 23 October 1995. He presented a paper titled 'Continuing Technical Education in India from Present to Future'.
- Prof. Arun K. Mishra, Joint Director, PSSCIVE, Bhopal, attended the conference on 'Partnerships in Teacher Development for a New Asia' as a panelist on TVE, at Bangkok, Thailand, from 6 to 8 December 1995. He presented a paper titled 'Adjustment in Teacher Education for the World of Work in India to Cope with Changes in Technology at Work Place'.
- Prof. Arun K. Mishra, Joint Director, PSSCIVE, Bhopal, visited Manila, Philippines, to participate in UNEVOC Network Workshops as an expert from 26 to 29 March 1996.
- Prof. A.K. Sacheti, PSSCIVE, Bhopal, participated as a nominee of MHRD in the Regional Expert Group Meeting on Philosophies of Policy Development and Implementation in Technical and Vocational Education at Auckland (New Zealand) from 2 to 9 April 1995.
- Prof. A. P. Verma, PSSCIVE, Bhopal, attended the Regional Workshop on the Preparation of Literacy Follow-up Materials in Asia and the Pacific as an MHRD nominee at Yogiakarta (Indonesia) from 21 November to 2 December 1995.
- Shri A. Palanivel, PSSCIVE, Bhopal, attended the workshop on 'Future Directions of Technical Education and Vocational Training in SAARC Countries' at Kathmandu, Nepal, on 8-9 August 1995 as a MHRD nominee.
- Prof. R.M. Kalra, Head, DEME and Dean (Academic) attended a seminar on 'Action-oriented Strategies for Prevention of AIDS/Drugs Addiction among Adolescents in Schools' from 17 to 21 September 1995 at Chaing Mai, Thailand.
- Prof. Arjun Dev, Head, DESSH, visited Tashkand to organize a refresher course in social science for 40 Uzbek teachers from 20 March to 2 April 1996.
- Dr (Smt.) Usha Nayar, Head, DWS, participated in the review meeting on innovative pilot project on 'Promotion of Primary Education for Girls and Disadvantaged Groups' at China from 15 to 19 May 1995.
- Prof. Ved Prakash, Head, NVC, participated in IIEP/UNICEF's Intensive regional training workshop on 'Monitoring the Quality of Primary Education with Focus on School Functioning' at Colombo (Sri Lanka) from 6 to 20 September 1995.
- Prof. Chandra Bhusan, CIET, participated in an ET Assistance Programme for the World Bank Curricula Review Mission for different courses of Tribhuvan University, Nepal, from 1 to 7 July 1995.
- Prof. R.N. Mathur, DESM, participated in the 17th World Conference of the International Council for Distance Education in England (UK), from 26 to 30 January 1995.
- Ms Anupam Ahuja, Lecturer, DEGSN, visited Ghana from 19 May to 6 June 1995 on a two-week mission to integrate education in the community-based Rehabilitation (CBR) programme using the UNESCO's Teacher Education Resource Pack on Special Needs in the Classroom. Teachers, head teachers and teacher educators were trained to respond positively to pupil diversity in schools.
- Prof. C.J. Daswani, head, DENFAS, attended the World Literacy Conference at Philladelphia, USA,

from 12 to 15 March 1996 and presented a paper titled 'Total Literacy Campaign in India: Status and Issues'.

- Dr S.N. Prasad, Reader, RIE, Mysore attended the 28th training course on Book Production in Asia-Pacific (training course on Utilising Computers in Publishing) at Tokyo, Japan, from 26 September to 14 October 1995.
- Dr V.V. Anand, Reader, RIE, Mysore, attended a three-month course at the International Centre for Conservation Education, Cheltemham (UK) from March to May 1996.
- Prof. M. A. Khader, Head and Dean, RIE, Ajmer visited the Cambridge (USA) from 18 June to 21 July 1995 to attend the annual workshop on educational policy analysis and planning at the Harvard Institute for International Development, and presented a paper on 'Concerns in the Quality of Content Change and Teacher Training in Primary Education : Indian Scene'.
- Dr. S.S. Pandey, Lecturer, RIE, Ajmer, attended a 12-week Technical Cooperation Training in Environmental Education under BICTP at Shrewsubury (UK) from 18 March to 7 June 1995.
- Dr J.S. Grewal, Professor of Education, RIE, Bhopal, served the Ministry of Higher Education, Government of Ghana, Accra, from September 1992 to November 1995 to develop curriculum for training colleges.
- Dr R.S. Sindhu, Reader in Chemistry, RIE, Bhopal, attended a Royal Society of Chemistry (IUPAC) programme at the UK from 29 August to 2 September 1995. He presented a paper on 'Teaching Strategies for Industry-based Topics of Chemistry' and attended several workshops and seminars related to school science education.
- Dr (Smt.) Reeta Sharma, Lecturer in Botany, RIE, Bhopal,, attended a training course on Environmental Education under TCTP at the UK from 18 March to 6 June 1996.

# 21

# USE OF HINDI

*The Hindi Cell developed conceptual literature and brochures, etc., organised training programmes for the personnel of the NCERT, developed future plans, monitored the progress of use of Hindi in the constituents of the NCERT and evaluated the achievement periodically. In the training workshops the staff was provided knowledge and guidance about rules and orders regarding the official language and removal of difficulties in matters relating to typing and correspondence, etc. in Hindi.*

## Promoting Use of Hindi

Several steps were taken by the NCERT for progressive use of Hindi as the official language. The Hindi Cell initiated several measures to ensure compliance of the orders, instructions and official language rules issued from time to time by the Department of Official Languages. The focus of its activities remained on promotion of use of Hindi in administrative and academic work of the NCERT and to provide publication and training facilities in these fields. For this purpose, the Hindi Cell developed conceptual literature and brochures, etc., organised training programmes for the personnel of the NCERT, developed future plans, monitored the progress of use of Hindi in the constituents of the NCERT and evaluated the achievement periodically. In the training workshops the staff was provided knowledge and guidance about rules and orders regarding the official language and removal of difficulties in matters relating to typing and correspondence, etc. in Hindi.

### Literature for Promoting Use of Hindi

To promote and accelerate the progressive use of Hindi in day-to-day working, the Hindi Cell has produced/ distributed relevant literature. A booklet titled *Hindi Prayog Sahayika* (*Bhag* I and II) has been developed by the Hindi Cell which is under print.

### Orientation and Training Workshops

Workshops were organised at the NCERT headquarters, the Regional Institutes of Education and the Field Offices to promote the use of Hindi. In the workshops the official language rules were introduced and practical exercises in noting and drafting, letter writing, translation, etc. were carried out. The English-Hindi Administrative Terminology was also provided to participants.

### Meetings

For maximising the progressive use of Hindi and to implement properly the official language rules, two meetings of the Official Language Implementation Committee were held during 1995-96 under the Chirmanship fo the Director, NCERT. Efforts and strategies to maximise the use of official language in office work were discussed with particular reference to compliance of official language rules. Besides reviewing the work done during 1994-95, certain significant decision were taken for progressive use of Hindi. The Committee was reconstituted in July 1995.

### Hindi Fortnight

Hindi Fortnight was organised from 14 to 28 September 1995. During this fortnight, the following competitions were organised;

- Hindi Typing Competition
- Hindi Shorthand Competition
- Hindi Noting and Drafting Competition
- Hindi Translation Competition
- Hindi Essay Writing Competition
- Hindi Poetry Competition

Out of 120 officials who participated in these competitions, 17 were declared as winners. Cash prizes of Rs 400 Rs 300 and Rs 200 were given to awardees who got first, second and third positions, respectively, in the above mentioned competitions, along with commendation certificates, during the 'Hindi Week' prize distribution programme.

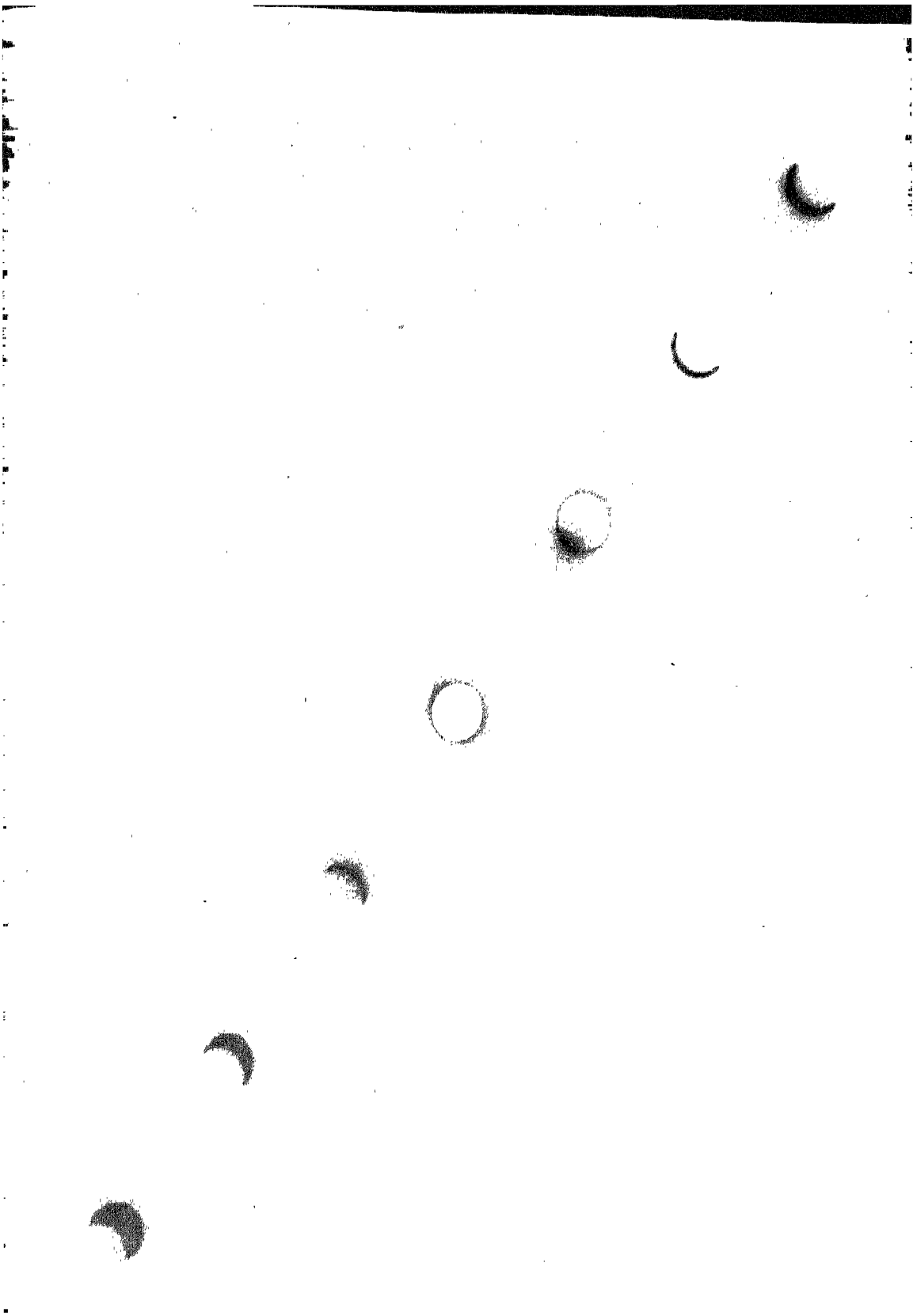
### Monitoring of Implementation

Besides quarterly progress reports, monitoring of the implementation of use of Hindi was undertaken in some Departments/Sections. During discussion, suggestions were specifically given to officials of the Steward Section, the Establishment II and the Establishment IV Sections. These inter alia include matters regarding correspondence, bilingual documents, biligual name plates and sign boards, rubber stamps and file headings, etc. The matter regarding compliance of official language rules was reiterated during interaction. The need of Hindi typist was also communicated to the NCERT administration.

The quarterly progress reports of the work done in Hindi in the NCERT were prepared and sent to the MHRD. The observations of the MHRD on the reports were placed

before the Official Language Implementation Committee of the NCERT and decisions were taken on several issues.

**Translation Work**

The Hindi Cell continued providing assistance in translating administrative documents and papers received from the Constituent Units of the NCERT. The work regarding translation and vetting of the Audit Report was also completed. The Hindi Cell provides typing/ stenographic assistance to those Departments and Sections of the NCERT where facilities of Hindi typists and stenographers are not available.

# THE NCERT COMMITTEES FOR THE YEAR 1995-96

## GENERAL BODY
**of the**
**National Council of Educational Research and Training**
***(Under Rule 3 of the Rules of the Council)***
**(Valid up to 23.12.1996)**

I. The Minister of Human Resource Development
*President*
*ex officio*

1. Shri Madhav Rao Scindia
Union Minister for Human Resource Development
Ministry of Human Resource Development
Shastri Bhavan
New Delhi 110 001
(up to 17 January 1996)

II. Chairman of the University Grants Commission
*ex officio*

2. Prof. (Km.) Armaity Desai
Chairman
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi 110 002

II. Secretary to the Ministry of Human Resource Development (Department of Education)
*ex officio*

3.(i) Shri S.V. Giri
Secretary to the Government of India
Ministry of Human Resource Development
(Department of Education)
Shastri Bhawan, New Delhi 110 001
(up to 2 November 1995)

(ii) Dr P. R. Dasgupta
Secretary to the Government of India
Ministry of Human Resource Development
(Department of Education)
Shastri Bhawan, New Delhi 110 001
(from 3 November 1995)

IV. Four Vice-Chancellors of Universities, one from each region; nominated by the Government of India

4. Vice-Chancellor
Guwahati University
Guwahati 781 014

5. Vice-Chancellor
Nagpur University
Nagpur 440 001

V. One representative of each State Government and Union Territory with a legislature who shall be the Education Minister of the State/Union Territory (or his representative) and in the case of Delhi, the Chief Executive Councillor, Delhi (or his representative)

6. Vice-Chancellor
   Punjab University
   Chandigarh 160 014

7. Vice-Chancellor
   Mysore University
   Craford, Mysore 570 005

8. Minister of Education
   Government of Andhra Pradesh
   Andhra Pradesh Secretariat Building
   Hyderabad 500 022
   Andhra Pradesh

9. Minister of Education
   Government of Arunachal Pradesh
   Itanagar 791 111
   Arunachal Pradesh

10. Minister of Education
    Government of Assam
    Janta Bhawan
    Dispur 781006
    Assam

11. Minister of Education
    Government of Bihar
    New Secretariat Building
    Patna 800 015
    Bihar

12. Minister of Education
    Government of Goa
    Goa Secretariat
    Panaji 403 001
    Goa

13. Minister of Education
    Government of Gujarat
    Block No.1, Sachivalaya
    Gandhi Nagar 382 010
    Gujarat

14. Minister of Education
    Government of Haryana
    Haryana Civil Secretariat
    Chandigarh 160 001

15. Minister of Education
Government of Himachal Pradesh
Shimla 171 002
Himachal Pradesh

16. The Adviser (Education) to the Governor
Government of Jammu and Kashmir
Srinagar 180 001

17. Minister of Education
Government of Karnataka
Vidhan Soudha
Bangalore 560 001
Karnataka

18. Minister of Education
Government of Kerala
Ashoka Nanthencode
Thiruvananthapuram 695 001
Kerala

19. Minister of Education
Government of Madhya Pradesh
Bhopal 462 001
Madhya Pradesh

20. Minister of Education
Government of Maharashtra
Mantralaya Main
Mumbai 400 032
Maharashtra

21. The Adviser (Education)
to the Governor
Manipur Secretariat
Imphal 795 001
Manipur

22. Minister of Education
Government of Meghalaya
Meghalaya Secretariat
Shillong 793 001
Meghalaya

23. Minister of Education
Government of Mizoram
Aizawal 796 001
Mizoram

24. Minister of Education
Government of Nagaland
Kohima 797 001
Nagaland

25. Minister of Education
Government of Orissa
Orissa Secretariat
Bhubaneswar 751 001
Orissa

26. Minister of Education
Government of Punjab
Chandigarh 160 017

27. Minister of Education
Government of Rajasthan
Government Secretariat
Jaipur 302 001
Rajasthan

28. Minister of Education
Government of Sikkim
Sikkim Secretariat
Tashilling
Gangtok 737 101
Sikkim

29. Minister of Education
Government of Tamil Nadu
Fort St. George
Madras 500 009
Tamil Nadu

30. Minister of Education
Government of Tripura
Civil Secretariat
Agartala 799 001
Tripura

31. Minister of Education
Government of Uttar Pradesh
Lucknow 226 001
Uttar Pradesh

32. Minister of Education
Government of West Bengal
Writer's Building

Calcutta 700 001
West Bengal

33. Minister of Education
Government of National
Capital Territory of Delhi
Old Secretariat
Delhi 110 054

34. Minister of Education
Government of Pondicherry
Assembly Secretariat, Victor Simonel Street
Pondicherry 605 001

VI. All Members of the Executive Committee not included above

35. (i) Ms Selja
Deputy Minister (Education and Culture)
Ministry of Human Resource Development
(Department of Education)
Shastri Bhawan
New Delhi 110 001

(ii) Shri Kripasindhu Bhoi
Minister of State (Education and Culture)
Ministry of Human Resource Development
Shastri Bhawan
New Delhi 110 001
(from 13 September 1995)

36. Prof. A. K. Sharma
Director, NCERT
New Delhi 110 016

37. Prof. J. S. Rajput
Chairman
National Council for Teacher Education
Bharat Scout Building, I.P. Estate
New Delhi 110 002

38. Shri G.S.D. Sharma
Managing Trustee, N.S.V.K. Trust
493/C, 8th Cross
77th Block, West Jaya Nagar
Bangalore 560 082

39. Mr Cristopher Anthony Brone
Frank Anthony Public School
13, Cambridge Road
Ulsoor
Bangalore 560 008

40. Dr (Smt.) Rita Khanna
D-1/202, Multi Storeyed Flats
San Martin Marg
New Delhi 110 021

41. Prof. A. N. Maheshwari
Joint Director, NCERT
New Delhi 110 016

42. Joint Director
CIET, NCERT
New Delhi 110 016

43. Dr A.K. Mishra
Joint Director, PSSCIVE, NCERT
131-Zone-II, M.P. Nagar
Bhopal 462 011
Madhya Pradesh

44. Prof. P. K. Khanna
Principal
Regional Institute of Education
Bhopal 462 011
Madhya Pradesh

45.(i) Dr K.J.S. Chatrath
Joint Secretary (School Education)
(Department of Education)
Ministry of Human Resource Development
Shastri Bhawan
New Delhi 110 001
(up to 18 September 1995)

(ii) Shri R.S. Pandey
Joint Secretary (School Education)
Ministry of Human Resource Development
(Department of Education)
Shastri Bhawan
New Delhi 110 001

46.(i) Ms Sujata Chauhan
Financial Adviser
Ministry of Human Resource Development
(Department of Education)
Shastri Bhawan
New Delhi 110 001
(up to 31 July 1995)

| | |
|---|---|
| | (ii) Shri S. Sathyamoorthy<br>Financial Adviser<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001 |
| VII.(a) Chairman<br>Central Board of Secondary Education<br>Delhi<br>*ex officio* | 47. Chairman<br>Central Board of Secondary Education<br>Shiksha Kendra<br>2, Community Centre<br>Preet Vihar<br>Delhi 110 092 |
| (b) Commissioner<br>Kendriya Vidyalaya Sangathan<br>New Delhi<br>*ex officio* | 48. Commissioner<br>Kendriya Vidyalaya Sangathan<br>Jeet Singh Marg<br>New Mehrauli Road<br>New Delhi 110 067 |
| (c) Director<br>Central Health Education Bureau (DGHS)<br>New Delhi<br>*ex officio* | 49. Director<br>Central Health Education Bureau (DGHS)<br>Ministry of Health and Family Welfare<br>Kotla Road<br>New Delhi 110 002 |
| (d) Deputy Director General<br>Incharge of Agricultural Education<br>ICAR, Ministry of Agriculture<br>*ex officio* | 50. Deputy Director General<br>Incharge of Agricultural Education<br>ICAR, Ministry of Agriculture<br>Dr Rajendra Prasad Road<br>New Delhi 110 001 |
| (e) Director of Training<br>Directorate General of<br>Training and Employment<br>Ministry of Labour<br>New Delhi<br>*ex officio* | 51. Director of Training<br>Directorate General of Training and<br>Employment, Ministry of Labour<br>Shram Shakti Bhawan<br>New Delhi 110 001 |
| (f) Representative of Education Division<br>Planning Commision<br>New Delhi<br>*ex officio* | 52. Educational Adviser<br>Planning Commission<br>Yojna Bhawan<br>Parliament Street<br>New Delhi 110 001 |
| VIII. Such other persons not<br>exceeding six as the<br>Government of India may<br>nominate (not less than four<br>of these shall be school teachers) | 53. Prof. V.G. Kulkarni<br>Director<br>Homi Bhaba Centre for Science Education<br>Tata Institute of Fundamental Research<br>Mumbai 400 005 |

54. Smt. S. C. Chona
Principal
Delhi Public School
R. K. Puram
New Delhi 110 022

55. Smt. Choudhary Pramodini Devi
Head Mistress
Kwakeithel Girls High School
Imphal 795 001
Manipur

56. Shri R.M.K. Browne
Principal
Christian Inter College
Mainpuri
Uttar Pradesh 205 001

57. Shri R. Venkatesan
Language Teacher (Grade I) (Tamil)
Jeevanandam Government Higher
Secondary School
Mudaliarpet
Pondicherry 605 004

58. Smt. Shanti Devi Gupta
UDT Government Girls Middle School
Kajipura, Bhopal
Madhya Pradesh

Special Invitee

59. Secretary
Council of Indian School
Certificate Examination
Pragati House, 3rd Floor
47, Nehru Place
New Delhi 110 019

Convenor

60.(i) Shri R.S. Pandey
Secretary, NCERT
New Delhi 110 016
(up to 28 December 1995)

(ii) Shri P.N. Chawla
Acting Secretary
NCERT
New Delhi 110 016

## EXECUTIVE COMMITTEE
### *(Under Rule 23 of the Rules of the Council)*
**(Valid up to 14 November 1997)**

| | | |
|---|---|---|
| President of the Council who shall be the *ex officio* President of the Executive Committee | 1. | Shri Madhavrao Scindia<br>Minister for Human Resource Development<br>President, NCERT<br>Shastri Bhawan<br>New Delhi 110 001<br>(up to 17 January 1996) |
| The Minister of State in the Ministry of Education who shall be the *ex officio* Vice-President of the Executive Committee | 2. | Shri Kripasindhu Bhoi<br>Minister of State (Education and Culture)<br>Ministry of Human Resource Development<br>Shastri Bhawan<br>New Delhi 110 001<br>(from 13 September 1995) |
| A Deputy Minister of Education nominated by the President of the Council | 3. | Ms Selja<br>Deputy Minister<br>(Education and Culture)<br>Ministry of Human Resource Development<br>Shastri Bhawan<br>New Delhi 110 001 |
| Director of the Council | 4. | Prof. A.K. Sharma<br>Director, NCERT<br>New Delhi 110 016 |
| Secretary of the Ministry of Human Resource Development | 5. (i) | Shri S.V. Giri<br>Secretary to the Government of India<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001<br>(up to 2 November 1995) |
| | (ii) | Dr P.R. Dasgupta<br>Secretary to the Government of India<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001 |

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|---|---|---|
| Chairman of the University Grants Commission *ex officio* | 6. | Dr (Km.) Armaity Desai<br>Chairman<br>University Grants Commission<br>Bahadur Shah Zafar Marg<br>New Delhi 110 002<br>(up to 4 December 1994) |
| Four Educationists with known interest in School Education (two of whom shall be school teachers) nominated by the President | 7. | Prof. J.S. Rajput<br>Chairman<br>National Council for Teacher Education<br>Bharat Scout Building<br>I.P. Estate<br>New Delhi 110 002 |
| | 8. | Shri G.S.D. Sharma<br>Managing Trustee, NSVK Trust<br>493/C, 8th Cross 7th Block,<br>Jayanagar<br>Bangalore 560 082 |
| | 9. | Mr Christopher Anthony Browne<br>Frank Anthony Public School<br>13, Cambridge Road<br>Ulsoor<br>Bangalore 560 008 |
| | 10. | Dr (Smt.) Rita Khanna<br>D-I/202 Multi Storeyed Flats<br>San Martin Marg<br>New Delhi 110 021 |
| Joint Director of the Council | 11. | Prof. A. N. Maheshwari<br>Joint Director, NCERT<br>New Delhi 110 016 |
| Three members of the faculty of the Council of whom at least two shall be at the level of Professors and Heads of Departments, nominated by the President of the Council | 12. | Joint Director<br>CIET, NCERT<br>New Delhi 110 016 |
| | 13. | Prof. A.K. Mishra<br>Joint Director, PSSCIVE, NCERT<br>131-Zone-II M.P. Nagar<br>Bhopal 462 011<br>Madhya Pradesh |
| | 14. | Prof. P.K. Khanna<br>Principal, Regional Institute of Education<br>Bhopal 462 013<br>Madhya Pradesh |

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|---|---|
| One representative of the Ministry of Human Resource Development | 15. (i) Dr K.J.S. Chatrath<br>Joint Secretary (School)<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001<br>(up to 18 September 1995) |
| | (ii) Shri R.S. Pandey<br>Joint Secretary (School)<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001 |
| One representative of the Ministry of Finance, who shall be the Financial Adviser of the Council | 16.(i) Ms Sujata Chauhan<br>Financial Adviser, NCERT<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001<br>(up to 31 July 1995) |
| | (ii) Shri S. Satyamoorthy<br>Financial Adviser<br>Ministry of Human Resource Development<br>Shastri Bhawan<br>New Delhi 110 001 |
| Secretary, NCERT<br>*Convenor* | 17. (i) Shri R.S. Pandey<br>Secretary, NCERT<br>New Delhi 110 016<br>(up to 28 December 1995) |
| | (ii) Shri P. N. Chawla<br>Acting Secretary<br>NCERT<br>New Delhi 110 016 |

## FINANCE COMMITTEE
*(Under Rule 62 of the Council)*
(Valid up to 25.10.1998)

| | | |
|---|---|---|
| Director, NCERT<br>*ex officio* | 1. | Prof. A. K. Sharma<br>Director, NCERT<br>New Delhi 110 016 |
| Financial Adviser<br>*ex officio* | 2. (i) | Ms Sujata Chauhan<br>Financial Adviser, NCERT<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001<br>(up to 31 July 1995) |
| | (ii) | Shri S. Satyamoorthy<br>Financial Adviser, NCERT<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001 |
| Joint Secretary (S) | 3.(i) | Dr K.J.S. Chatrath<br>Joint Secretary (Schools)<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001<br>(up to 18 September 1995) |
| | (ii) | Shri R. S. Pandey<br>Joint Secretary (Schools)<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001 |
| | 4. (i) | Shri Inderjit Khanna<br>Secretary<br>University Grants Commission<br>Bahadur Shah Zafar Marg<br>New Delhi 110 002<br>(up to 25 October 1995) |

(ii) Shri Anil Sinha
Joint Director
NIEPA
New Delhi 110 016

5. Dr B. P. Khandelwal
Chairman
Central Board of Secondary Education
Shiksha Kendra
2, Community Centre
Preet Vihar
Delhi 110 092

Secretary, NCERT
*Member-Convenor*

6. (i) Shri R.S. Pandey
Secretary, NCERT
New Delhi 110 016
(up to 28 December 1995)

(ii) Shri P.N. Chawla
Acting Secretary
NCERT
New Delhi 110 016

## ESTABLISHMENT COMMITTEE
*(Under Regulation 10 of the Council)*
(Valid up to 26 December 1996)

| | | |
|---|---|---|
| Director, NCERT<br>*Chairman* | 1. | Prof. A.K. Sharma<br>Director, NCERT<br>New Delhi 110 016 |
| Joint Director, NCERT | 2. | Prof. A.N. Maheshwari<br>Joint Director, NCERT<br>New Delhi 110 016 |
| A nominee of the<br>Ministry of Human Resource Development<br>(Department of Education)<br>Government of India<br>to be nominated by the President | 3. (i) | Shri K.J.S. Chatrath<br>Joint Secretary (S)<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001<br>(up to 18 September 1995) |
| | (ii) | Shri R.S. Pandey<br>Joint Secretary (S)<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001 |
| Four Educationists to be<br>nominated by the President<br>of whom at least one is<br>Scientist | 4. | Shri Jokhan Singh<br>Professor and Head<br>School of Studies in Statistics<br>Faculty of Science<br>Vikram University<br>Ujjain 456 010 |
| | 5. | Yapa S. Yongda<br>Netuk House<br>Tibet Road<br>Gangtok, Sikkim |
| | 6. | Dr E. Annamalia<br>Director<br>Central Institute of Indian Language<br>Manasgangotri<br>Mysore 570 006 |

| | |
|---|---|
| | 7. Dr. K. K. Mandal<br>Former Vice-Chancellor<br>Bihar and Magadh University<br>Chairman, S.P. Mandal Institute of<br>Rural Development and Social Change<br>S.K. Nagar<br>P.O. Kidwai Puri<br>Patna 800 001 |
| One representative from the Regional College of Education to be nominated by the President | 8. Prof. S.T.V.G. Acharyulu<br>Regional Institute of Education<br>Mysore 570 006<br>Karnataka |
| One representative of the National Institute of Education, New Delhi to be nominated by the President | 9. Dr (Smt.) Savita Sinha<br>Professor, DESSH, NCERT<br>New Delhi 110 016 |
| Two representatives, one each from the regular academic and non-academic staff of the Council elected from amongst their category in the manner prescribed in Appendix to this Regulation | 10. Dr S.K. Yadav<br>Senior Lecturer<br>DTEE, NCERT<br>New Delhi 110 016 |
| | 11. (i) Shri Sachidanand Sharma<br>UDC<br>CIET, NCERT<br>New Delhi 110 016<br>(up to 15 May 1995) |
| | (ii) Shri Ved Prakash<br>Personal Assistant<br>DESM, NCERT<br>New Delhi 110 016<br>(from 3 August 1995) |
| Financial Adviser | 12. (i) Ms Sujata Chauhan<br>Financial Adviser<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>(up to 31 July 1995) |
| | (ii) Shri S. Satyamoorthy<br>Financial Adviser, NCERT<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001 |

Secretary, NCERT
*Member-Convenor*

13.(i) Shri R.S. Pandey
Secretary, NCERT
New Delhi 110 016
(up to 28 December 1995)

(ii) Shri P.N. Chawla
Acting Secretary
NCERT
New Delhi 110 016

## BUILDING AND WORKS COMMITTEE

**(Valid up to 26.12.1996)**

| | | |
|---|---|---|
| Director, NCERT<br>*Chairman*<br>*ex officio* | 1. | Prof. A. K. Sharma<br>Director, NCERT<br>New Delhi 110 016 |
| Joint Director, NCERT<br>*Vice-Chairman*<br>*ex officio* | 2. | Prof. A. N. Maheshwari<br>Joint Director, NCERT<br>New Delhi 110 016 |
| Chief Engineer, CPWD<br>or his nominee | 3. | Shri Ravinder Lal<br>Chief Engineer<br>CPWD, NDZ - III<br>Sewa Bhawan, R. K. Puram<br>New Delhi 110 022 |
| A representative of the<br>Ministry of Finance (Works) | 4. | Shri D.C. Bhatt<br>A.F.A. (Works)<br>Ministry of Urban Development<br>Nirman Bhawan<br>New Delhi 110 001 |
| The Consulting Architect of NCERT | 5. | Shri Dina Nath<br>Senior Architect, CPWD<br>Sewa Bhawan, R. K. Puram<br>New Delhi 110 022 |
| Financial Adviser of the<br>Council or his nominee | 6. (i) | Ms Sujata Chauhan<br>Financial Adviser, NCERT<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001<br>(up to 31 July 1995) |

| | | |
|---|---|---|
| | (ii) | Shri S. Satyamoorthy<br>Financial Adviser<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001 |
| nominee of the Ministry of<br>luman Resource Development | 7.(i) | Dr K.J.S. Chatrath<br>Joint Secretary (S)<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001<br>(up to 18 September 1995) |
| | (ii) | Shri R.S. Pandey<br>Joint Secretary (S)<br>Ministry of Human Resource Development<br>(Department of Education)<br>Shastri Bhawan<br>New Delhi 110 001 |
| Civil Engineer of standing<br>nominated by the President) | 8. | Prof. T. Ramamurthy<br>Civil Engineer<br>Civil Engineering Department<br>Indian Institute of Technology<br>Hauz Khas, New Delhi |
| n Electrical Engineer of standing<br>nominated by the President) | 9. | Shri S. N. Girotra<br>Resident Engineer (Electrical)<br>Indian Institute of Technology<br>Hauz Khas, New Delhi |
| member of the<br>Executive Committee<br>nominated by the President) | 10. | |
| Secretary, NCERT<br>*Member-Secretary* | 11.(i) | Shri R.S. Pandey<br>Secretary, NCERT<br>New Delhi 110 016<br>(up to 28 December 1995) |
| | (ii) | Shri P.N. Chawla<br>Acting Secretary<br>NCERT<br>New Delhi 110 016 |

## ACADEMIC COMMITTEE OF THE NIE

(Valid up to 14 August 1996)

1. Dean (Academic) NCERT — *Chairman*
2. Head, Department of Education in Social Sciences and Humanities (DESSH), NCERT, New Delhi 110 016
3. Head, Department of Education in Science and Mathematics (DESM), NCERT, New Delhi 110 016
4. Head, Department of Educational Measurement and Evaluation (DEME), NCERT, New Delhi 110 016
5. Head, Department of Education in Non-Formal and Alternative Schooling (DENFAS), NCERT, New Delhi 110 016
6. Head, Department of Educational Psychology and Foundations of Education (DEPFE), NCERT, New Delhi 110 016
7. Head, Department of Pre-School and Elementary Education (DPSEE), NCERT, New Delhi 110 016
8. Head, Department of Teacher Education and Extension (DTEE), NCERT, New Delhi 110 016
9. Head, Department of Computer Education and Technological Aids (DCETA), NCERT, New Delhi 110 016
10. Head, Publication Division, NCERT, New Delhi 110 016
11. Head, Division of Library, Documentation and Information (DLDI), NCERT, New Delhi 110 016
12. Head, Department of Women's Studies (DWS), NCERT, New Delhi 110 016
13. Head, International Relations Division (IRD), NCERT, New Delhi 110 016
14. Head, Planning, Programming, Monitoring and Evaluation Division (PPMED), NCERT, New Delhi 110 016
15. Dr J. L. Pandey, Reader, Department of Social Sciences and Humanities (DESSH), NCERT, New Delhi 110 016
16. Dr J. S. Gill, Reader, Department of Education in Science and Mathematics (DESM), NCERT, New Delhi 110 016
17. Shri J.P. Agarwal, Reader, Department of Educational Measurement and Evaluation (DEME), NCERT, New Delhi 110 016
18. Dr K. K. Vashishtha, Reader, Department of Pre-School and Elementary Education (DPSEE), NCERT, New Delhi 110 016
19. Dr (Smt.) R.K. Chopra, Reader, Department of Teacher Education and Extension (DTEE), NCERT, New Delhi 110 016
20. Dr (Smt.) Swadesh Mohan, Reader, Department of Educational Psychology and Foundations of Education (DEPFE), NCERT, New Delhi 110 016
21. Member-Secretary, Educational Research and Innovations Committee (ERIC), NCERT, New Delhi 110 016
22. Dr V. G. Kulkarni, Homi Bhabha Centre for Science Education, Tata Institute of Fundamental Research (TIFR) Colaba, Bombay
23. Prof. P. K. Agnihotri, Department of Linguistics, Delhi University, Delhi
24. Prof. B. N. Mukherjee, Indian Statistical Institute, Calcutta
25. Prof. K. Sitaram Rao, TTTI, Madras
26. Dr (Smt.) Renu Debi, Professor, Guwahati University, Guwahati

## MANAGING COMMITTEES OF THE REGIONAL INSTITUTES OF EDUCATION (RIEs)

### *Managing Committee of the Regional Institute of Education, Ajmer*

1. Vice-Chancellor — *Chairman*
   MDS University
   Ajmer
2. Principal — *Vice-Chairman*
   Regional Institute of Education
   Ajmer
3. Representative of the Government of Haryana
4. Representative of the Government of Jammu and Kashmir
5. Representative of the Government of Himachal Pradesh
6. Representative of the Government of Uttar Pradesh
7. Representative of the Government of Punjab
8. Representative of the Government of Rajasthan
9. Representative of the Government of National Capital Territory of Delhi
10. Representative of the Union Territory of Chandigarh
11. Prof. Lokesh Kaul
    Himachal University
    Shimla
    (Nominated by the President, NCERT)
12. Prof. V. K. Sabharwal
    Head, Department of Education
    Delhi University (C.I.E.)
    B-3, Chhatra Marg
    Delhi 110 007
13. Dean (C)
    NCERT
    (Nominee of the Director, NCERT)
14. Head, Department of Education
    Regional Institute of Education, Ajmer
    (Nominated by the Director, NCERT)
15. Head, Department of Science
    Regional Institute of Education, Ajmer
    (Nominated by the Director, NCERT)

16. Nominee of the University as per their regulations

17. Administrative Officer — *—Secretary*
    Regional Institute of Education
    Ajmer

18. Field Advisers of the Region — *-Special Invitees*

## II. *Managing Committee of the Regional Institute of Education, Bhopal*

1. Vice-Chancellor — *-Chairman*
   Barakatullah University
   Bhopal

2. Principal — *-Vice-Chairman*
   Regional Institute of Education
   Bhopal

   One nominee of the Education Department of each State and Union Territory in the region

3. Shri S.P. Dube
   Secretary to the Government of Madhya Pradesh
   Department of Education (School)
   Vallabh Bhawan, Bhopal

4. Shri R. S. Trivedi
   Chairman
   10+2 Board, Pat Nagar
   Ellisbridge, Ahmedabad 380 006

5. Shri S. S. Salgaonkar
   Director; SCERT
   708, Mukthekar Marg
   Sadashiv Peth, Pune 411 030

6. Shri M. V. Joshi
   Director
   State Institute of Education
   Alte Provorim, Bardez, Goa

7. Assistant Director of Education
   Union Territory of Daman
   Daman 396 210, Via Vapi (Western Railway)

8. Collector/Secretary of Education
   Dadra and Nagar Haveli
   Silvasa 396 230, Via Vapi (Western Railway)

9. Prof. M. N. Palsane
   Department of Experimental Psychology
   University of Pune, Pune
   (Nominated by the President, NCERT)

10. Prof. T.S. Murthy
    Former Vice-Chancellor
    E-7/747, Shahpura, Bhopal
    (Nominee of the Director, NCERT)

11. Dean (C), NCERT
    (Nominee of the Director, NCERT)

12. Head of the Department of Education
    Regional Institute of Education, Bhopal
    (Nominated by the Director, NCERT)

13. Head of the Department of Science
    Regional Institute of Education, Bhopal
    (Nominated by the Director, NCERT)

14. Dr H. K. Goswami
    Professor of Genetics and Head of Teaching Department
    Barakatullah University, Bhopal
    (Nominee of the University as per their regulations)

15. Dr D.V. Jaiswal
    Principal
    Government P.G. College
    Sehore, Madhya Pradesh
    (Nominee of the University as per their regulations)

16. Administrative Officer — *Secretary*
    Regional Institute of Education
    Bhopal

17. Field Advisers of the Region — *Special Invitees*

### *III. Managing Committee of the Regional Institute of Education, Bhubaneswar*

1. Vice-Chancellor — *Chairman*
   Utkal University
   Bhubaneswar

2. Principal — *Vice-Chairman*
   Regional Institute of Education
   Bhubaneswar

   One nominee of the Education Department of each State and Union Territory in the region

3. Director
   SCERT, Assam

4. Smt. K. Namchoom
   Joint Director of Public Instruction (Academic)
   Naharlagaon 791 110
   Arunachal Pradesh

5. Shri P. C. Kesharwani
   Deputy Secretary
   Department of Human Resource Development
   (Education), Government of India
   New Secretariat, Patna

6. Director, SCERT
   Manipur, Imphal

7. Shri C. Wolflang
   Director, SCERT
   Meghalaya, Shillong

8. Peter Lianhleia
   Principal
   College of Teacher Education
   Aizawl, Mizoram

9. Shri D. N. Choudhury
   Director, SCERT
   Kohima
   Nagaland

10. The Secretary to Government
    (Education Department)
    Government of Orissa, Secretariat
    Bhubaneswar

11. Smt. R. Namehyo
    Joint Director of Education
    Government of Sikkim, Gangtok

12. The Commissioner/Secretary
    Education Department
    Government of Tripura
    Agartala

13. Dr P. K. Chaudhury
    Director of Public Instruction and
    *ex officio* Secretary, Education Department
    Government of West Bengal
    Writer's Building, Calcutta

14. Shri N. Das
    Assistant Director of Education
    (Administration)
    Andaman and Nicobar Administration, Port Blair

15. Prof. Sachchidanand
    A. N. Sinha Institute of Social Studies
    154, Kadamkuan
    New Areas, Patna
    (Nominated by the President, NCERT)

16. Prof. M. N. Karna
    Department of Sociology
    North-Eastern Hill University
    Shillong
    (Nominated by the President, NCERT)

17. Dean (Coordination)
    NCERT, New Delhi
    (Nominee of the Director, NCERT)

18. Head, Department of Education
    Regional Institute of Education
    Bhubaneswar
    (Nominated by the Director, NCERT)

19. Head, Department of Science
    Regional Institute of Education
    Bhubaneswar
    (Nominated by the Director, NCERT)

20. Dr D. C. Mishra
    Director of Public Instruction (Retd.)
    Jagannath Lane, Badambadi
    Cuttack, Orissa
    (Nominee of the University as per their regulations)

21. Administrative Officer — *-Secretary*
    Regional Institute of Education
    Bhubaneswar

22. Field Advisers of the Region — *-Special Invitees*

### *IV. Managing Committee of the Regional Institute of Education, Mysore*

1. Vice-Chancellor — *-Chairman*
   Mysore University, Mysore

2. Principal — *-Vice-Chairman*
   Regional Institute of Education
   Mysore
   A nominee of the Education Department of each State and Union Territory in the region

3. Secretary to Government (Education Department)
   Government of Pondicherry
   Pondicherry, or his nominee

4. Shri Z. I. Khan
   Director of Education
   Lakshadweep

5. Director of Public Instruction
   (Research and Training)
   DSERT, Karnataka, Bangalore

6. Dr T. K. Mohamed
   Commissioner for Educational
   Development and Research
   SIE, Kerala
   Thiruvananthapuram

7. Shri R. Narayanswamy
   Director of Teacher Education
   Research and Training
   Tamil Nadu, Madras

8. Shri D. P. Patnayak
   Former Director, CIIL
   Bogdi Road, Mysore
   (Nominated by President, NCERT)

9. Prof. P. K. B. Nayar
   Department of Sociology
   Kerala University
   Thiruvananthapuram
   (Nominated by the President, NCERT)

10. Head, Department of Education
    Regional Institute of Education
    Mysore
    (Nominated by the Director, NCERT)

11. Head of the Department of Science
    Regional Institute of Education
    Mysore
    (Nominated by the Director, NCERT)

12. Dean (C)
    NCERT, New Delhi
    (Nominee of the Director, NCERT)

13. Nominee of the University as per their regulations

14. Administrative Officer — *–Secretary*
    Regional Institute of Education
    Mysore

15. Field Advisers in the Region — *–Special Invitees*

## EDUCATIONAL RESEARCH AND INNOVATIONS COMMITTEE

(Valid up to 15 December 1996)

### *From the NCERT*

1. Dean (Research) — *Chairman*
2. Dean (Academic)
3. Dean (Coordination)
4. Heads of all Constituents of the NCERT
   - (i) Joint Director, Central Institute of Educational Technology
   - (ii) Joint Director, PSSCIVE, Bhopal
   - (iii) Principal, Regional Institute of Education, Ajmer
   - (iv) Principal, Regional Institute of Education, Bhopal
   - (v) Principal, Regional Institute of Education, Bhubaneswar
   - (vi) Principal, Regional Institute of Education, Mysore
   - (vii) Heads of the Departments
   - (viii) Member-Secretary (ERIC)
5. Two persons from the State Institutes of Education nominated by the Director, NCERT
   - (i) Director<br>State Council of Educational<br>Research and Training<br>Andhra Pradesh<br>Hyderabad 500 001
   - (ii) Director<br>State Council of Educational<br>Research and Training, Rajasthan<br>Saheli Marg<br>Udaipur

### Experts/Educationists/Research Scholars

6. Eight persons from Universities/Research Institutes of other appropriate agencies nominated by the President, NCERT
   - (i) Shri Shakeel Ahmed<br>Ex-Vice-Chancellor<br>Bihar University<br>Muzaffarpur<br>Bihar

(ii) Prof. M. K. Sarma
Vidya Bhawan G. S. Institute of Advanced Studies in Education (IASE)
Udaipur
Rajasthan

(iii) Prof. M. C. Joshi
Vice-Chancellor
University of Jodhpur
Jodhpur
Rajasthan

(iv) Smt. Smriti Swarup
Head, Department of Special Education
Sir Vithaldas Vidyavihar
Juhu Road, Santacruz
Mumbai 400 049

(v) Prof. M. S. Gomathy Ammal
Department of Education
Kerala University
Thiruvananthapuram

(vi) Prof. N. Venkatiah
Professor (NFE)
Department of Education
University of Mysore
Mysore 570 005

(vii) Prof. Ghulam Rasool
Mohalla Basantpur (Takia)
P. O. Geeta Press
District Gorakhpur
Uttar Pradesh 273 005

(viii) Prof. Dalip Singh
Head, Department of Political Science
Punjab University
Chandigarh

## *Special/Permanent Invitees of the Director, NCERT*

7. (i) Prof. R. D. Shukla, DESM

(ii) Prof. Puran Chand, Head, IRD

(iii) Prof. R. R. Saxena, DESDP

(iv) Prof. (Smt.) A. Bhatnagar, DEPFE

(v) Prof. R. K. Dixit, DESSH

(vi) Prof. M. A. Khader, Regional Institute of Education, Ajmer

(vii) Prof. G. K. Lehiri, Regional Institute of Education, Ajmer

(viii) Prof. S.T.V.G. Acharyulu, Regional Institute of Education, Mysore

(ix) Prof. D. K. Bhattacharjee, Regional Institute of Education, Bhubaneswar

(x) Dr D. C. Upreti
Moh: West Pokharkhali
Rani Dhara Road
Almora 263 601
Uttar Pradesh

(xi) Prof. Pandurang Rao
Dean
Birla Institute of Technology
and Science, Pilani
Rajasthan

(xii) Dr S. C. Sharma
Professor and Dean
Faculty of Education
Andhra University
Waltair 530 003

(xiii) Dr Lakshahira Das
Retd. Professor
Rajgarh Road
Guwahati 781 003
Assam

(xiv) Prof. B. P. Sinha
Head
Agricultural Extension Division
Indian Agricultural Research Institute
New Delhi 110 012

(xv) Prof. S. Saikia
Ex-Professor and Head
N. H. 37, Gotanagar
Guwahati 781 033
Assam

(xvi) Prof. S. N. Rath
Post-Graduate Department of Anthropology
Sambalpur University
Jyoti Vihar Burla
Sambalpur 768 019
Orissa

(xvii) Prof. K. V. Sheth
Faculty of Education
South Gujarat University
P. O. Box 49
Udhna Megdalla Road
Surat 395 007

(xviii) Prof. R. K. Hebser
Professor of Research Methodology
P. O. Box. 8313
Sion-Trombay Road
Deonar
Mumbai 400 088

(xix) Dr B. N. Puhan
Professor
(Psychometrics and Development)
Department of Psychology
Utkal University, Vani Vihar
Bhubaneswar 751 004

## PROGRAMME ADVISORY COMMITTEE

***(Under Rule 48 of the Rules of the Council)***

**(Valid up to 14.8.1996)**

1. Director, NCERT —*Chairman*
2. Joint Director, NCERT —*Vice-Chairman*
3. Joint Director, Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal 462 011
4. Head, Department of Education in Social Sciences and Humanities (DESSH), NCERT, New Delhi 110 016
5. Dr A. K. Sacheti, Professor, Pandit Sunderlal Sharma Central Institute of Vocational Education, Bhopal 462 011
6. Dr (Smt.) S. Sinha, Professor, Department of Education in Social Sciences and Humanities (DESSH), NCERT, New Delhi 110 016
7. Head, Department of Education in Science and Mathematics (DESM), NCERT, New Delhi 110 016
8. Dr J. Mitra, Professor, Department of Education in Science and Mathematics (DESM), NCERT, New Delhi 110 016
9. Head, Department of Educational Psychology and Foundations of Education (DEPFE), NCERT, New Delhi 110 016
10. Dr (Smt.) Sushma Gulati, Reader, Department of Educational Psychology and Foundations of Education (DEPFE), NCERT, New Delhi 110 016
11. Head, Department of Pre-School and Elementary Education (DPSEE), NCERT, New Delhi 110 016
12. Dr V. P. Gupta, Reader, Department of Pre-School and Elementary Education (DPSEE), NCERT, New Delhi 110 016
13. Head, Department of Education in Non-Formal and Alternative Schooling (DENFAS), NCERT, New Delhi 110 016
14. Dr (Ms) P. Dasgupta, Reader, Department of Education in Non-Formal and Alternative Schooling (DENFAS), NCERT, New Delhi 110 016
15. Head, Department of Educational Measurement and Evaluation (DEME), NCERT, New Delhi 110 016
16. Shri J. P. Agarwal, Reader, Department of Educational Measurement and Evaluation (DEME), NCERT, New Delhi 110 016
17. Head, Department of Teacher Education and Extension (DTEE), NCERT, New Delhi 110 016
18. Dr V. K. Raina, Professor, Department of Teacher Education and Extension (DTEE), NCERT, New Delhi 110 016
19. Head, Department of Women's Studies (DWS), NCERT, New Delhi 110 016
20. Dr (Smt.) Kiran Devendra, Reader, Department of Women's Studies (DWS), NCERT, New Delhi 110 016
21. Head, Division of Library, Documentation and Information (DLDI), NCERT, New Delhi 110 016
22. Head, Publication Division, NCERT, New Delhi 110 016
23. Head, Department of Computer Education and Technological Aids (DCETA), NCERT, New Delhi 110 016

24. Dr H. O. Gupta, Reader, Department of Computer Education and Technological Aids (DCETA), NCERT New Delhi 110 016
25. Joint Director, Central Institute of Educational Technology (CIET), NCERT, New Delhi 110 016
26. Shri Chandra Bhushan, Professor, Central Institute of Educational Technology (CIET), NCERT, New Delhi
27. Head, Navodaya Vidyalaya Cell, NCERT, New Delhi 110 016
28. Head, International Relations Division, NCERT, New Delhi 110 016
29. Head, Planning, Programming, Monitoring and Evaluation Division (PPMED), NCERT, New Delhi 110 016
30. Dr J. D. Sharma, Reader, Planning, Programming, Monitoring and Evaluation Division (PPMED), NCERT, New Delhi 110 016
31. Head, Department of Education of Groups with Special Needs (DEGSN), NCERT, New Delhi 110 016
32. Dr (Smt.) Neerja Shukla, Professor, Department of Education of Groups with Special Needs (DEGSN), NCERT New Delhi 110 016
33. Head, Department of Educational Research and Policy Perspective (DERPP), NCERT, New Delhi 110 016
34. Head, Department of Educational Survey and Data Processing (DESDP), NCERT, New Delhi 110 016
35. Dr C. L. Kaul, Reader, Department of Educational Survey and Data Processing (DESDP), NCERT, New Delhi
36. Principal, Regional Institute of Education, Ajmer, Rajasthan
37. Prof. M. A. Khader, Dean (Instruction), Regional Institute of Education, Ajmer, Rajasthan
38. Principal, Regional Institute of Education, Shyamla Hills, Bhopal, Madhya Pradesh
39. Prof. J. S. Grewal, Dean (Instruction), Regional Institute of Education, Shyamla Hills, Bhopal, Madhya Pradesh
40. Principal, Regional Institute of Education, Bhubaneswar 751 007, Orissa
41. Prof. Somnath Dutta, Dean (Instruction), Regional Institute of Education, Bhubaneswar 751 007, Orissa
42. Principal, Regional Institute of Education, Mysore, Karnataka
43. Prof. G. Ravindra, Dean (Instruction), Regional Institute of Education, Mysore, Karnataka
44. Dr M. M. Pandey, OSD, North-East Regional Institute of Education, Shillong
45. Secretary, NCERT, New Delhi 110 016 *(Convenor)*
46. Member-Secretary, Educational Research and Innovations Committee (ERIC), DERPP, NCERT, New Delhi
47. Dr Gilleswar Konger, Head, Department of Bio-Technology, Guwahati University, Assam
48. Dr (Ms) M. S. Shah, 24, Tolak Nagar, Paladi, Ahmedabad
49. Dr Rama N. Singh, Dean, Faculty of Engineering, Banaras Hindu University, Varanasi, Uttar Pradesh
50. Dr H. N. Prasad, Director, School of Letters, M. G. University, Kottayam, Kerala
51. Dr S. P. Ruhela, Dean, Faculty of Education, Jamia Millia Islamia, Jamia Nagar, New Delhi
52. Director, State Institute of Education, Alto Provorim, Bardez, Goa

53. Director, State Institute of Education, Tripura, Abhoy Nagar, Agartala 700 005
54. Director, State Institute of Education, Union Territory of Chandigarh, Sector 32, Chandigarh
55. Director of Education, Union Territory of Lakshadweep, Kavarati 682 001
56. Principal, State Institute of Education, Andaman and Nicobar Islands, Port Blair
57. Chief Accounts Officer, NCERT, New Delhi 110 016
58. Shri T. S. Sarma, Public Relations Officer, NCERT, New Delhi 110 016
59. Dr J. C. Chaudhari, Field Adviser, NCERT, I-B, Chandra Colony, Ahmedabad
60. Dr C. A. P. Rao, Field Adviser, NCERT, 3-C-69/B-7, Avanti Nagar Colony, Bashir Bagh, Hyderabad

## MEMBERS OF THE OFFICIAL LANGUAGE IMPLEMENTATION COMMITTEE OF THE NCERT FOR THE YEAR 1995-96

**A. *Official Language Implementation Committee of the Council's Headquarters***

1. Director, NCERT — *Chairman*
2. Joint Director, NCERT — *Vice-Chairman*
3. Joint Director, CIET
4. Secretary
5. Joint Secretary
6. All Heads of the Departments
7. All Deputy Secretaries
8. Chief Accounts Officer
9. Vigilance-cum-Security Officer
10. Public Relations Officer
11. Director, Official Language, Ministry of Human Resource Development, New Delhi
12. Director (Implementation), Department of Official Language
    Ministry of Home Affairs, New Delhi
13. Professor Incharge, Hindi Cell — *Member-Secretary*
14. Hindi Officer

**B. *Official Language Implementation Committee of the Council***

1. Director, NCERT — *Chairman*
2. Joint Director, NCERT — *Vice- Chairman*
3. Joint Director, CIET
4. Joint Director, PSSCIVE
5. Secretary
6. Joint Secretary
7. All Heads of the Departments
8. All Principals of Regional Institutes of Education
9. All Field Advisers
10. All Deputy Secretaries
11. Chief Accounts Officer
12. Vigilance-cum-Security Officer
13. Public Relations Officer
14. Professor Incharge, Hindi Cell — *Member-Secretary*
15. Hindi Officer

# SANCTIONED STAFF STRENGTH

*Category-wise sanctioned staff strength of NCERT as on 31.3.1996*

| S. No. | Names of Constituents | Academic Group | | | Non-Academic (Ministerial) | | | Non-Academic (Technical) | | | Group D | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | A | B | C | A | B | C | | |
| 1. | NIE and NCERT Headquarters New Delhi | 207 | 01 | 02 | 24 | 85 | 407 | 45 | 47 | 147 | 269 | 1234 |
| 2. | CIET New Delhi | 25 | - | - | 03 | 11 | 45 | 30 | 34 | 74 | 24 | 246 |
| 3. | RIE, Ajmer | 55 | 24 | 35 | 01 | 06 | 41 | 04 | 03 | 41 | 85 | 295 |
| 4. | RIE, Bhopal | 58 | 24 | 42 | 01 | 06 | 40 | 03 | 03 | 32 | 86 | 295 |
| 5. | RIE, Bhubaneswar | 81 | 27 | 55 | 01 | 06 | 40 | 04 | 04 | 44 | 92 | 354 |
| 6. | RIE, Mysore | 80 | 19 | 44 | 01 | 06 | 41 | 05 | 04 | 36 | 75 | 311 |
| 7. | FA's Offices* | 25 | - | - | - | - | 43 | - | - | 13 | 26 | 107 |
| 8. | RPDC's (Publication Division) | - | - | - | - | - | 15 | 06 | 06 | 06 | 06 | 39 |
| 9. | PSSCIVe, Bhopal | 35 | - | - | 04 | 04 | 13 | 05 | 12 | 04 | 05 | 82 |
| | Total | 566 | 95 | 178 | 35 | 124 | 685 | 102 | 113 | 397 | 668 | 2963 |
| | ***Post-SIU Creation Addition*** | | | | | | | | | | | |
| 10. | RIE, Shillong** | 24 | - | - | - | - | - | - | - | - | - | 24 |
| | - | - | - | - | - | 12 | - | - | - | - | 13 | 25*** |
| Grand Total | | 590 | 95 | 178 | 35 | 124 | 697 | 102 | 113 | 397 | 681 | 3012**** |

* The study in respect of all FA's Offices has been conducted and SIU has reduced the strength from 143 to 107.

** A newly established constituent of the Council vide Order No. 28-1/95-NCERT/RIE/FA/NE-RIE dated 2/10.4.96. w.e.f. 1.1.1996

*** Twenty-five posts have been approved by the MHRD and created by the Council on compassionate grounds which will be adjusted in the natural waste-out.

**** In addition to 3012, twenty-nine daily-wagers have been conferred temporary status as per the GOI's O. M. No. 51016/2/90Estt. (C) dated 10.9.1993.

# NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

## *Receipt and Payment Account for 1995-96*

| *Receipt* | *Rs* | *Rs* | *Payment* | *Rs* | *Rs* |
|---|---|---|---|---|---|
| **OPENING BALANCE** | | | **BUDGETARY EXPENDITURE** | | |
| Cash in hand and at Bank | 15,34,71,625 | | PAY OF OFFICERS | | |
| | | | Non-Plan | 3,27,84,663 | |
| Funds in Transit | 39,46,600 | | Plan | 4,99,086 | 3,32,83,749 |
| Balance in T-39 Account | 13,42,268 | 15,87,60,493 | PAY OF ESTABLISHMENT | | |
| | | | Non-Plan | 4,07,15,612 | |
| | | | Plan | 91,405 | 4,08,07,047 |
| Grants received from Ministry of Human Resource Development (MHRD) for Budgetary Expenditure | | | ALLOWANCES AND HONORARIUM | | |
| | | | Non-Plan | 11,58,42,197 | |
| Non-Plan | 20,00,00,000 | | Plan | 7,31,075 | 11,65,73,272 |
| Plan | 4,73,84,424 | 24,73,84,424 | | | |
| Grants relating to Specific Projects (Schedule H) | 46,80,46,641 | 46,80,46,641 | TRAVELLING ALLOWANCE | | |
| | | | Non-Plan | 33,13,796 | |
| | | | Plan | 1,24,802 | 34,38,598 |
| COUNCIL'S RECEIPTS (SECTION V) | | | OTHER CHARGES | | |
| Rent of Council's Buildings | 27,60,280 | | Non-Plan | 4,82,63,760 | |
| | | | Plan | 14,14,274 | 4,96,78,034 |
| Interest on Loans & Advances | 12,84,424 | | | | |
| | | | SCHOLARSHIPS AND FELLOWSHIPS | | |
| Interest on Term Deposit | 2,39,04,995 | | Non-Plan | 11,97,435 | |
| | | | Plan | 1,832 | 11,99,267 |
| Interest on Provident Fund Investment including T-39 | 2,00,51,864 | | PROGRAMMES | | |
| Recovery of Overpayments | 9,45,821 | | Non-Plan | 10,56,10,908 | |
| | | | Plan | 3,44,38,134 | 14,00,49,042 |
| Sale Proceeds of Science Kits | 16,77,107 | | | | |
| Fees and Charges | 15,68,837 | | | | |
| | | | EQUIPMENT AND FURNITURE | | |
| | | | Non-Plan | 13,89,674 | |
| | | | Plan | 14,37,831 | 28,27,505 |
| Sale Proceeds of Books and Periodicals | 23,69,60,228 | | | | |
| | | | LAND AND BUILDINGS | | |
| Leave Salary and Pension Contribution | 2,18,933 | | Non-Plan | 1,62,24,012 | |
| | | | Plan | 2,38,51,811 | 4,00,75,823 |

*contd.*

## *Receipt and Payment Account for 1995-96 (contd)*

| Receipt | Rs | Rs | Payment | Rs | Rs |
|---|---|---|---|---|---|
| Central Government Health Scheme | 2,73,201 | | Payment relating to Specific Projects (Schedule H) | 17,57,35,768 | 17,57,35,768 |
| Miscellaneous Receipts | 35,45,619 | 29,31,91,309 | SECTION II | | |
| | | | MISCELLANEOUS PAYMENTS | | |
| | | | Rent of Council Building | 11,88,665 | |
| | | | Central Government Health Scheme | 31,78,167 | |
| | | | Leave Salary and Pension Contribution | 1,38,861 | |
| | | | Contributory Provident Fund Interest and Council's Share | 5,27,836 | |
| | | | General Provident Fund Interest | 2,14,57,030 | |
| | | | Pension and DCRG | 2,96,09,478 | |
| | | | Audit Fees | 2,45,860 | |
| | | | Advertisement | 10,93,176 | |
| | | | Deposit Linked Insurance Scheme | 1,69,298 | |
| | | | Miscellaneous/Unforeseen | 2,72,152 | 5,78,80,523 |
| | | | **DEBT, DEPOSIT AND REMITTANCES** | | |
| **Loans and Advances (Interest Bearing)** | | | **Loans and Advances (Interest Bearing)** | | |
| (Section-IV(3) (I)) | | | Motor Car/Scooter | 12,23,700 | |
| Motor Car/Scooter | 17,46,735 | | Other Conveyance (Cycle) | 44,320 | |
| Other Conveyance (Cycle) | 54,731 | | House Building Advance | 25,10,437 | |
| House Building Advance | 33,62,807 | | Fan Advance | 13,600 | 37,92,057 |
| Fan Advance | 8,302 | 51,72,575 | | | |
| | | | Permanent Advance | 17,300 | |
| **Section IV(3) II (Non-Interest Bearing)** | | | | | |
| | | | Prog./Miscellaneous Advance | 3,84,399 | 4,01,699 |
| Festival Advance | 5,38,000 | | | | |
| Travelling Allowance/ Pay on Transfer | 8,89,660 | | | | |
| Flood Advance | 8,900 | 14,36,560 | | | |
| | | | GPF Current Account | 2,31,99,298 | |
| | | | Savings Bank Account | 2,39,04,072 | 4,71,03,365 |
| Departmental Advances (Section IV(5)) | | | | | |
| | | | CPF Current Account | 5,26,391 | |
| Permanent Advance | 5,900 | | SB Account | 1,87,505 | 7,13,896 |
| Prog. /Miscellaneous Advance | 4,30,816 | 4,36,716 | | | |
| | | | Transferred to SB Account | 3,89,11,220 | 3,89,11,220 |
| Debt (Section IV (1)) | | | PF Investment (Long Term) | 1,59,11,220 | |
| GPF | 4,80,41,696 | | | | |
| Interest on GPF | 2,15,02,602 | 6,95,44,298 | Council's Investment (Short Term) | 76,43,89,257 | 78,03,00,477 |
| CPF | 8,75,372 | | Earnest Money and Security | 6,05,916 | |
| Interest and Council's Share | 5,27,836 | 14,03,208 | Caution Money | 65,700 | |
| | | | Others | 5,96,240 | |
| Receipt from Current Account | | 3,89,11,220 | Other Deposit (Science Kits) | 17,57,597 | 30,25,453 |

*contd.*

## *Receipt and Payment Account for 1995-96 (contd).*

| Receipt | Rs | Rs | Payment | Rs | Rs |
|---|---|---|---|---|---|
| **INVESTMENTS** (Section IV(4)) | | | **REMITTANCES** | | |
| | | | GPF/CPF | 3,86,346 | |
| | | | PLI/LIC | 1,56,074 | |
| Short Term Investment | 45,40,47,544 | 45,40,47,544 | GLIS | 21,74,357 | |
| | | | Income Tax | 27,26,037 | |
| | | | Death Relief Fund | 3,65,824 | |
| **DEPOSITS** | | | Thrift and Credit Society | 6,47,499 | |
| (Section IV(2)) | | | Miscellaneous | 12,61,020 | |
| Earnest Money and Security | 50,86,018 | | Sub-office Remittances | 76,75,188 | |
| Caution Money | 41,906 | | Periodical Remittances | 28,79,76,420 | |
| | | | Sales Tax | 42,490 | 30,34,11,255 |
| Others | 5,91,490 | | | | |
| Other Deposits (Science Kit) | 5,64,990 | 62,84,404 | | | |
| | | | CLOSING BALANCE (Schedule C) | | |
| | | | Cash in Hand and at Bank | 20,67,25,196 | |
| **REMITTANCES** | | | Balance in SB Account (T-39) | 2,96,263 | |
| (Section IV(7)) | | | Funds in Transit | 20,80,260 | 20,91,01,719 |
| GPF/CPF | 3,98,839 | | | | |
| PLI/LIC | 1,66,768 | | | | |
| GLIS | 24,85,137 | | | | |
| Income Tax | 27,25,662 | | | | |
| Death Relief Fund | 1,66,140 | | | | |
| Thrift and Credit Society | 6,85,753 | | | | |
| Miscellaneous | 12,63,315 | | | | |
| Sub-office Remittances | 77,41,853 | | | | |
| Periodical Remittances | 28,79,76,420 | | | | |
| Sales Tax | 80,490 | 30,36,90,377 | | | |
| **Grand Total** | | **2,04,83,09,769** | | | **2,04,83,09,769** |

# PUBLICATIONS BROUGHT OUT DURING 1995-96

| lo. | *Title* | *Month* | *Number of Copies* |
|---|---|---|---|
| | **Class I** | | |
| | Bal Bharati Bhag I | March 1996 | 2,20,000 |
| | Abhyas Pustika, Bal Bharati Bhag I | March 1996 | 1,00,000 |
| | Let's Learn English Book I | March 1996 | 3,60,000 |
| | Workbook for Let's Learn English Book I | March 1996 | 3,60,000 |
| | Let's Learn Mathematics Book I | March 1996 | 3,30,000 |
| | **Class II** | | |
| | Bal Bharati Bhag II | March 1996 | 2,00,000 |
| | Abhyas Pustika: Bal Bharati Bhag II | March 1996 | 1,50,000 |
| | Let's Learn English Book II | March 1996 | 3,20,000 |
| | Workbook for Let's Learn English Book II | March 1996 | 2,50,000 |
| ). | Let's Learn Mathematics Book II | March 1996 | 2,20,000 |
| | **Class III** | | |
| . | Bal Bharati Bhag III | March 1996 | 2,30,000 |
| !. | Abhyas Pustika: Bal Bharati Bhag III | March 1996 | 2,40,000 |
| l. | Let's Learn English Book III | March 1996 | 3,15,000 |
| l. | Workbook for Let's Learn English Book III | March 1996 | 2,10,000 |
| 5. | Let's Learn Mathematics Book III | March 1996 | 2,30,000 |
| 3. | Aao Ganit Seekhen Pustak III | April 1995 | 6,000 |
| 7. | Aao Ganit Seekhen Pustak III | March 1996 | 10,000 |
| 3. | Exploring Environment Book I | March 1996 | 1,15,000 |

| S.No. | Title | Month | Number of Copies |
|---|---|---|---|
| 19. | Hum Aur Hamara Desh | March 1996 | 1,50,000 |
| | **Class IV** | | |
| 20. | Bal Bharati Bhag IV | March 1996 | 2,00,000 |
| 21. | Abhyas Pustika: Bal Bharati Bhag IV | March 1996 | 2,30,000 |
| 22. | English Reader Book I | March 1996 | 2,60,000 |
| 23. | Workbook for English Reader Book I | March 1996 | 1,50,000 |
| 24. | Read for Pleasure I | March 1996 | 1,35,000 |
| 25. | Let's Learn Mathematics Book IV | March 1996 | 2,35,000 |
| 26. | Our Country India | March 1996 | 1,60,000 |
| 27. | Exploring Environment Book II | March 1996 | 80,000 |
| | **Class V** | | |
| 28. | Bal Bharati Bhag V | February 1996 | 2,40,000 |
| 29. | Abhyas Pustika: Bal Bharati Bhag V | March 1996 | 50,000 |
| 30. | Swasti Bhag I | March 1996 | 1,05,000 |
| 31. | Abhyas Pustika: Swasti Bhag I | March 1996 | 40,000 |
| 32. | English Reader Book II | March 1996 | 2,00,000 |
| 33. | Workbook for English Reader Book II | March 1996 | 2,00,000 |
| 34. | Read for Pleasure II | March 1996 | 1,15,000 |
| 35. | Let's Learn Mathematics Book V | March 1996 | 1,000,00 |
| 36. | Hamara Desh Aur Sansar | March 1996 | 1,00,000 |
| | **Class VI** | | |
| 37. | Kishore Bharati Bhag I | March 1996 | 1,40,000 |
| 38. | English Reader Book III | March 1996 | 1,50,000 |
| 39. | Read for Pleasure III | March 1996 | 40,000 |
| 40. | Mathematics Book I | February 1996 | 3,05,000 |
| 41. | Ganit Bhag I | May 1995 | 17,000 |
| 42. | Ancient India | March 1996 | 55,000 |
| 43. | Prachin Bharat | March 1996 | 75,000 |
| 44. | Lands and Peoples Part I | March 1996 | 1,70,000 |

| S.No. | Title | Month | Number of Copies |
|---|---|---|---|
| 45. | Desh Aur Unke Niwasi Bhag I | March 1996 | 65,000 |
| 46. | Our Civic Life | September 1995 | 15,000 |
| 47. | Our Civic Life | March 1996 | 1,20,000 |
| 48. | Hamara Nagrik Jeevan | March 1996 | 60,000 |
| 49. | Science Book I | March 1996 | 1,40,000 |
| 50. | Science: A Workbook for Class VI | April 1995 | 30,000 |
| 51. | Hindi Vyakaran Aur Rachna (Classes VI - VIII) | April 1995 | 35,000 |
| | **Class VII** | | |
| 52. | Kishore Bharati Bhag II | March 1996 | 80,000 |
| 53. | Sankshipt Mahabharat | March 1996 | 75,000 |
| 54. | Swasti Bhag III | March 1996 | 55,000 |
| 55. | English Reader Book IV | March 1996 | 80,000 |
| 56. | Mathematics Book II Part I | March 1996 | 2,15,000 |
| 57. | Mathematics Book II Part II | April 1955 | 1,15,000 |
| 58. | Mathematics Book II Part II | March 1996 | 1,50,000 |
| 59. | Medieval India | March 1996 | 75,000 |
| 60. | Science Book II | April 1995 | 1,70,000 |
| 61. | Science Book II | March 1995 | 1,60,000 |
| 62. | Problem Book of Mathematics | March 1996 | 15,000 |
| 63. | Lands and Peoples Part II | April 1995 | 1,25,000 |
| 64. | Lands and Peoples Part II | March 1996 | 1,35,000 |
| 65. | Desh Aur Unke Niwasi Bhag II | April 1995 | 90,000 |
| 66. | Desh Aur Unke Niwasi Bhag II | March 1996 | 60,000 |
| | **Class VIII** | | |
| 67. | Kishore Bharati Bhag III | March 1996 | 1,20,000 |
| 68. | Trividha | March 1996 | 55,000 |
| 69. | Jeevan Aur Vigyan | March 1996 | 25,000 |
| 70. | Swasti Bhag IV | March 1996 | 45,000 |

| S.No. | Title | Month | Number of Copies |
|---|---|---|---|
| 71. | English Reader Book V | March 1996 | 75,000 |
| 72. | Read for Pleasure V | March 1996 | 50,000 |
| 73. | Mathematics Book III Part II | June 1995 | 2,50,000 |
| 74. | Mathematics Book III Part II | March 1996 | 1,60,000 |
| 75. | Ganit Pustak III Bhag I | May 1995 | 6,000 |
| 76. | Ganit Pustak III Bhag I | March 1996 | 15,000 |
| 77. | Ganit Pustak III Bhag I | April 1996 | 6,000 |
| 78. | Ganit Pustak III Bhag II | March 1996 | 15,000 |
| 79. | Modern India | May 1995 | 75,000 |
| 80. | Modern India | March 1996 | 1,00,000 |
| 81. | Lands and Peoples Part III | March 1996 | 90,000 |
| 82. | Vigyan Pustak III | March 1996 | 15,000 |
| 83. | Problem Book of Mathematics | March 1996 | 20,000 |
| 84. | Language Through Literature I English Reader | April 1995 | 65,000 |
| 85. | Language Through Literature I English Reader | March 1996 | 60,000 |
| 86. | Workbook to Language Through Literature I | March 1996 | 45,000 |
| 87. | Language Through Literature I Supplementary Reader | | |
| 88. | Swati Bhag I | March 1996 | 1,30,000 |
| 89. | Parag Bhag I | March 1996 | 1,20,000 |
| 90. | Science | March 1996 | 2,10,000 |
| 91. | Vigyan Bhag I | March 1996 | 45,000 |
| 92. | Vigyan Bhag II | March 1996 | 40,000 |
| 93. | Problem Book of Mathematics | July 1995 | 20,000 |
| 94. | Problem Book of Mathematics | March 1996 | 30,000 |
| 95. | Ganit Bhag I | March 1996 | 60,000 |
| 96. | The Story of Civilization Vol. I | April 1995 | 1,70,000 |

| S.No. | Title | Month | Number of Copies |
|---|---|---|---|
| 97. | The Story of Civilization Vol.I | March 1996 | 1,20,000 |
| 98. | Paryavaran Bodh | March 1996 | 75,000 |
| 99. | Manak Hindi Vyakaran Aur Rachna (Classes IX-X) | May 1995 | 95,000 |
| 100. | Manak Hindi Vyakaran Aur Rachna (Classes IX-X) | March 1996 | 75,000 |
| 101. | Sanchayika Bhag I | March 1996 | 40,000 |
| 102. | Mansi Bhag I | March 1996 | 30,000 |
| 103. | Our Economy: An Introduction | October 1995 | 20,000 |
| 104. | Our Economy: An Introduction | March 1996 | 1,25,000 |
| 105. | Vyavaharik Hindi Vyakaran Aur Rachna (Classes IX-X) (New Book) | March 1996 | 55,000 |
| | **Class X** | | |
| 106. | Language Through Literature II English Reader (B Course) | March 1996 | 55,000 |
| 107. | Workbook to Language Through Literature II (B Course) | March 1996 | 30,000 |
| 108. | Language Through Literature II Supplementary Reader | March 1996 | 40,000 |
| 109. | Swati Bhag II | March 1996 | 90,000 |
| 110. | Parag Bhag II | March 1996 | 55,000 |
| 111. | Mathematics | March 1996 | 1,20,000 |
| 112. | Vigyan Bhag I | April 1995 | 65,000 |
| 113. | Vigyan Bhag II | April 1995 | 65,000 |
| 114. | Ganit Bhag I | March 1996 | 35,000 |
| 115. | Ganit Bhag II | March 1996 | 90,000 |
| 116. | India: Economic Geography | March 1996 | 1,25,000 |
| 117. | Bharat: Arthik Bhugol | April 1995 | 35,000 |
| 118. | Sanchayika Bhag II | March 1996 | 40,000 |
| 119. | Mansi Bhag II | March 1996 | 40,000 |
| 120. | The Story of Civilization Vol.II | May 1995 | 2,10,000 |

| S.No. | Title | Month | Number of Copies |
|---|---|---|---|
| 121. | Our Government: How it Functions | April 1995 | 1,70,000 |
| 122. | Hamara Shashan Kaise Chalta Hai (Revised) | June 1995 | 1,10,000 |
| 123. | Hamara Shashan Kaise Chalta Hai | March 1996 | 80,000 |
| | **Class XI** | | |
| 124. | Pallav Bhag I | May 1995 | 35,000 |
| 125. | I Am The People | May 1995 | 1,20,000 |
| 126. | Prachin Bharat | April 1995 | 40,000 |
| 127. | Principles of Geography Part I | May 1995 | 20,000 |
| 128. | Principles of Geography Part II | July 1995 | 20,000 |
| 129. | Bhugol Ke Siddhant Bhag II | August 1995 | 24,000 |
| 130. | Sociology; An Introduction | June 1995 | 8,000 |
| 131. | Madhyakalin Bharat | April 1995 | 38,000 |
| 132. | Accounting Book I | May 1995 | 40,000 |
| 133. | Physics Part I | May 1995 | 60,000 |
| 134. | Physics Part II | June 1995 | 85,000 |
| 135. | Chemistry Part I | May 1995 | 85,000 |
| 136. | Chemistry Part II | June 1995 | 72,000 |
| 137. | Biology Part I | June 1995 | 80,000 |
| 138. | Biology Part II | June 1995 | 80,000 |
| 139. | Jeev Vigyan Bhag I | December 1995 | 2,000 |
| 140. | Evolution of the Indian Economy | April 1995 | 43,000 |
| 141. | Bharatiya Arthavyavastha Ka Vikas | April 1995 | 25,000 |
| 142. | Fieldwork and Laboratory Techniques in Geography | June 1995 | 10,000 |
| 143. | Mathematics Part I | May 1995 | 1,45,000 |
| 144. | Mathematics Part II | May 1995 | 1,45,000 |
| 145. | Mathematics Part III | June 1995 | 1,45,000 |

| S.No. | Title | Month | Number of Copies |
|---|---|---|---|
| 146. | Hindi Kendrik Vyakaran Aur Rachna (New Book) | April 1995 | 55,000 |
| 147. | Vyakaran Saurabham (Sanskrit) | March 1996 | 1,500 |
| 148. | Niharika Bhag II | March 1996 | 25,000 |
| 149. | Pallav Bhag II | March 1996 | 21,000 |
| 150. | Mandakini Bhag II | March 1996 | 35,000 |
| 151. | Hindi Sahitya Ka Sankshipt Itihas | March 1996 | 10,000 |
| 152. | A Course in Written English | March 1996 | 25,000 |
| 153. | The Web of Our Life | March 1996 | 55,000 |
| 154. | Biology Part I | April 1995 | 55,000 |
| 155. | Biology Part I | March 1996 | 52,000 |
| 156. | Chemistry Part I | April 1995 | 1,00,000 |
| 157. | Chemistry Part II | April 1995 | 1,00,000 |
| 158. | Bhautiki Bhag I | September 1995 | 2,000 |
| 159. | Jeev Vigyan Bhag I | January 1996 | 5,000 |
| 160. | Major Concepts in Political Science | March 1996 | 11,000 |
| 161. | Rajniti Vigyan Ki Pramukh Avdharnayen | March 1996 | 9,000 |
| 162. | Adhunik Bharat | April 1996 | 60,000 |
| 163. | Bharat: Samanya Bhugol | March 1996 | 25,000 |
| 164. | India: Resources and Regional Development | March 1996 | 16,000 |
| 165. | Indian Society | March 1996 | 11,000 |
| 166. | Bharatiya Samaj | March 1996 | 4,000 |
| 167. | Mathematics Part I | June 1995 | 1,35,000 |
| 168. | Mathematics Part II | June 1995 | 1,35,000 |
| 169. | Mathematics Part III | June 1995 | 1,35,000 |
| 170. | Contemporary World History Part I (New Book) | December 1995 | 30,000 |

| S.No. | Title | Month | Number of Copies |
|---|---|---|---|
| 171. | Samkalin Vishwa Itihas Bhag I (New Book) | February 196 | 20,000 |
| 172. | Democracy in India (New Book) | April 1995 | 20,000 |
| 173. | Democracy in India | March 1996 | 15,000 |
| 174. | Bharat Mein Loktantra (New Book) | April 1995 | 15,000 |
| 175. | Physics Part I (New Book ) | June 1995 | 1,50,000 |
| 176. | Physics Part II (New Book) | November 1995 | 1,00,000 |

## URDU TEXTBOOKS

| S.No. | Title | Month | Number of Copies |
|---|---|---|---|
| | **Class I** | | |
| 177. | Urdu Ki Nai Kitab | July 1995 | 18,000 |
| | **Class II** | | |
| 178. | Aao Hisab Seekhen Book II | March 1996 | 12,000 |
| 179. | Urdu Ki Nai Kitab | July 1995 | 3,000 |
| | **Class III** | | |
| 180. | Aao Hisab Seekhen Pustak III | March 1996 | 12,000 |
| 181. | Gird-O-Pesh Ka Mutala Book I | July 1995 | 3,000 |
| 182. | Urdu Ki Nai Kitab | June 1995 | 10,000 |
| | **Class IV** | | |
| 183. | Hamara Mulk Hindustan | July 1995 | 2,000 |
| 184. | Gird-O-Pesh Ka Mutala Book II | July 1995 | 3,000 |
| 185. | Aao Hisab Seekhen Book IV | March 1996 | 14,000 |
| 186. | Urdu Ki Nai Kitab | June 1995 | 8,000 |
| | **Class V** | | |
| 187. | Hamara Mulk Aur Duniya | July 1995 | 3,000 |
| 188. | Gird-O-Pesh Ka Mutala Book III | July 1995 | 3,000 |
| 189. | Aao Hisab Seekhen Book V Part II | July 1995 | 5,000 |

| S.No. | Title | Month | Number of Copies |
|---|---|---|---|
| 190. | Urdu Ki Nai Kitab | June 1995 | 7,000 |
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